

ANNUAL REPORT  
OF THE  
**Department of Lands and Mines**  
OF THE  
PROVINCE OF ALBERTA  
FOR THE  
**Fiscal Year Ended March 31st**  
**1943**

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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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1944



*To the Honourable J. C. Bowen,  
Lieutenant-Governor of the Province of Alberta.*

SIR:

I have the honour to submit the report of the Department of Lands and Mines for the fiscal year ended March 31st, 1943.

I have the honour to be, Sir,

Your obedient servant,

N. E. TANNER,

*Minister of Lands and Mines.*

Edmonton, March 14, 1944.





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GOVERNMENT OF ALBERTA  
DEPARTMENT OF LANDS AND MINES

Resulting from the transfer on October 1st, 1930, of Alberta's natural resources from federal to provincial control, the Department of Lands and Mines was on this date brought into being by the Alberta Government. The general purpose of the new Department was to be one of supervision and management of the resources in question.

Ministers of the Department, responsible at different periods for this administration, appear as follows:

*Hon. R. G. Reid, appointed October 2nd, 1930,*  
*Hon. Hugh W. Allen, appointed July 10th, 1934,*  
*Hon. Charles C. Ross, appointed September 3rd, 1935,*  
*Hon. N. E. Tanner, appointed January 5th, 1937.*

CHIEF OFFICERS  
DEPARTMENT OF LANDS AND MINES

March 31st, 1943

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Honourable N. E. Tanner .....	<i>Minister of Lands and Mines</i>
John Harvie .....	<i>Deputy Minister of Lands and Mines</i>
T. C. Rankine .....	<i>Departmental Solicitor</i>
V. A. Wood .....	<i>Director of Lands</i>
M. Gossip .....	<i>Agent, Calgary Land Agency</i>
R. Cruickshank .....	<i>Agent, Peace River Land Agency</i>
H. H. Somerville .....	<i>Assistant Superintendent of Mining Lands</i>
H. Ingrey .....	<i>Inspector of Mining Rights</i>
T. F. Blefgen .....	<i>Director of Forestry</i>
E. S. Huestis .....	<i>Acting Assistant Director of Forestry</i>
F. W. Neilson .....	<i>Chief Timber Inspector</i>
A. Earnshaw .....	<i>Radio Superintendent</i>
E. S. Huestis .....	<i>Fish and Game Commissioner</i>
D. E. Forsland .....	<i>Superintendent of Game</i>
H. B. Watkins .....	<i>Superintendent of Fisheries</i>
T. W. Dalkin .....	<i>Superintendent of the Technical Division</i>
A. A. Millar .....	<i>Chief Inspector of Mines</i>
E. R. Edwards .....	<i>Acting Accountant</i>
J. L. Irwin .....	<i>Statistician</i>

SPECIAL AREAS BOARD

Head Office: Hanna, Alberta

A. C. McCully .....	<i>Chairman</i>
D. M. Graham .....	<i>Secretary</i>
J. R. McBeath .....	<i>Member</i>
J. H. Todrick .....	<i>Supervisor, Edmonton</i>

SPECIAL DISTRICT AGENTS

D. M. Graham .....	<i>Hanna</i>
R. B. Langley .....	<i>Oyen</i>
D. J. Wilson .....	<i>Consort</i>
A. D. McIntyre .....	<i>Lomond</i>

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD

Head Office: Calgary

J. J. Frawley .....	<i>Chairman</i>
M. D. Kemp .....	<i>Member</i>



# REPORT

OF THE

## Department of Lands and Mines

1942-43

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*Honourable N. E. Tanner,  
Minister of Lands and Mines,  
Edmonton.*

SIR:

I have the honour to submit the thirteenth Annual Report of the Department of Lands and Mines for the fiscal year ended March 31st, 1943.

As in the last two years it is possible to report once again advances made in production totals covering development of Alberta's natural resources, with consequent advances also in revenue secured.

Still another record is to be reported covering surplus on income account, which is accompanied by a decrease in total expenditures.

Under the heading of natural resources development, both oil and coal reached the highest production figures in the history of the province, oil for the first time passing the ten million barrel total and coal reaching almost to seven and three quarter million tons.

For the first time there appears in the report of the Accounting Division a brief picture to illustrate the noticeable volume of work for which the administration of this Division is responsible.

Figures covering the vast numbers of entries, official and interim receipts and other items of a similar nature are presented, which, in themselves alone, apart from many other duties, will give an idea of the sum total of work and responsibility which is necessarily involved.

### DEPARTMENT'S REVENUE AND PRODUCTION, 1942-43

A new record was again established for the Department when a surplus on income account of \$1,946,210.59 was reached for the year, an increase over last year's figure of \$200,280.77. Total expenditure on income account came to \$806,948.41, a decrease from last year of \$40,606.91, due principally to the noticeable drop in fire-fighting expenses. Details of these various accounts, showing increases and decreases, appear in the Accounting Division's section of this Report.

Petroleum production for the calendar year 1942 showed an increase of 227,653 barrels in comparison with the preceding year. Natural gas consumption increased by 4,138,159 Mcf.

Coal, with the highest annual production total to be recorded in the province, increased by 784,215 tons. The manufacture of coke and briquettes attained record figures for the year also—coke with an increase of 1,218 tons and briquettes with an increase of 71,717 tons. Another record was established in the quantity of electrical power used in the operation of Alberta's coal mines, which increased by 5,518,189 k.w. hours.

A decrease is recorded in clay and shale mined during the year, which dropped 14,994 tons, with consequent decreases in the manufacture of bricks by 2,832,524, and the manufacture of tiles by 2,201 tons.

Lumber, manufactured from timber cut on provincial and school lands and on forest reserves, totalling 228,703,425½ F.B.M., showed a decrease of 43,641,703½ F.B.M. in comparison with last year.

Other production increases appearing for 1942 are as follows: stone, 4,086 tons; salt, 5,569 tons; cement, 175,528 barrels and lime 871 tons. Sand and gravel production decreased, however, by 474,840 tons.

#### LANDS ADMINISTRATION

*Land Agencies.*—With automobile travel cut down to a minimum, the practice of inspectors calling upon homestead entrants to accept applications for patent had to be stopped. A system to replace it was introduced by the creation of temporary sub-agencies at suitable points, where such applications were received and where other departmental business was carried out. The temporary sub-agencies totalled 45. Land agencies during the year were continued at Calgary and Peace River and sub-agencies were in operation at Bonnyville, Lac La Biche, Athabaska, Hines Creek and Grande Prairie. The sub-agency at Lethbridge was closed.

*Soil Survey Inspections.*—Details covering soil survey inspections are given in the Land Division's report. The objective to be gained was the preparation of a soil classification map with a view to determining the suitability of land settlement in different areas. In addition to soil classification, other information dealing with topography, tree covering, costs of clearing, value of land, etc., was at the same time acquired. These, and other matters, general and statistical, covering provincial and school lands' administration, are dealt with in the Division's report.

#### FOREST SERVICE

*Fire Season.*—The smallest fire loss for seven years is emphasized with the publication of the 1942 figures, which offer a startling contrast when compared with the figures for 1941, most disastrous fire year in the life time of this Department.

Reasons, which make it possible to present this most satisfactory information, are given in detail in the Forestry Section of this Report. They were, of course, due to the extent of snowfall and bountiful precipitation through the usual danger periods of the year.

As in previous years an annual statement, dealing with Alberta's fire losses, appears on the next page.

*Radio.*—As a result of the welcome reduction in fire hazards, radio equipment was not put into operation as early as in previous years.

New installations were made at Calgary and Rocky Mountain House, which improved the service in the south of the province. A big power transmitter was also installed at Lac La Biche.

During the fire hazard period all look-out and headquarters stations stood by from eight to twelve hours per day and, with the operating portable and mobile sets, rangers and timber inspectors were able to contact look-out or headquarters stations in their zones with very little delay.

## SUMMARY OF FIRE LOSSES WITHIN ALBERTA FOREST RESERVES

Period	Number of Fires	Area (Acres)	Salvable Timber M.f.b.m.	Salvable Timber (Cords)	Unsalvable Timber M.f.b.m.	Unsalvable Timber (Cords)	Cost of Suppression	Total Loss
October 1, 1930 to March 31, 1931.....	9	41,925			2.00	129.00	\$ 551.67	\$ 71.69
April 1, 1931 to December 31, 1931.....	31	52,218.05	2,370.50	3,086.00	6,293.73	111,599.00	17,624.12	154,651.47
Calendar Year 1932.....	32	25,557.92	8.00	15,863.00	3,845.00	1,003.60	3,491.04	8,790.73
Calendar Year 1933.....	36	29,273.88	26.72	1,201.00	19,188.25	108,414.00	18,409.92	95,796.93
Calendar Year 1934.....	47	21,962.00	1,510.00	9,200.00	2,661.00	209,550.00	31,118.51	96,195.87
Calendar Year 1935.....	12	6.70				60.00	94.56	45.50
Calendar Year 1936.....	52	165,465.00	7,573.00	25.00	885,192.00	764,594.00	108,894.48	1,504,273.45
Calendar Year 1937.....	17	90.00			37,500.00	8.50	387.38	292.05
Calendar Year 1938.....	18	13,111.50	13,740.00	5.00	518.50	1.50	9,422.79	36,556.45
Calendar Year 1939.....	46	38,113.72	292.00	1,982.00	4,229.00	54,721.00	49,056.68	101,455.13
Calendar Year 1940.....	30	4,232.50	1,000.00	730.00	3.00	3,429.00	6,999.81	14,164.25
Calendar Year 1941.....	22	4,497.00		3,000.00	345.50	2,028.00	2,694.96	15,432.25
Calendar Year 1942.....	6	18.75					119.43	9.75
TOTALS .....	361	330,386.605	26,520.25	35,092.00	959,779.98	1,255,539.60	\$ 248,865.35	\$ 2,027,735.52

## SUMMARY OF FIRE LOSSES OUTSIDE ALBERTA FOREST RESERVES

Period	Number of Fires	Area (Acres)	Salvable Timber M.f.b.m.	Salvable Timber (Cords)	Unsalvable Timber M.f.b.m.	Unsalvable Timber (Cords)	Cost of Suppression	Total Loss
October 1, 1930 to March 31, 1931.....	47	11,145.19	155.00	104,199.00	3.75	684,625.50	\$ 686.64	\$ 79,950.85
April 1, 1931 to December 31, 1931.....	591	552,638.07	134,536.00	12,215.00	122,690.50	132,743.00	82,088.89	712,835.79
Calendar Year 1932.....	247	133,562.14	274.75	13,953.50	40,627.15	59,545.00	15,320.51	152,085.58
Calendar Year 1933.....	249	64,489.12	4,383.50	3,159.00	41,694.50	14,464.00	16,971.75	100,008.43
Calendar Year 1934.....	183	36,907.00	3,404.50	1,195.00	547.50	5,371.00	7,050.51	29,825.77
Calendar Year 1935.....	182	36,513.25	1,600.00	23,116.00	1,573.00	6,017.00	1,558.90	5,722.50
Calendar Year 1936.....	186	38,989.00	2,574.00	33,113.00	659.00	609,837.00	13,647.81	45,656.85
Calendar Year 1937.....	358	835,169.00	14,702.00	23,054.00	251,544.00	1,974,651.50	54,952.28	1,088,173.90
Calendar Year 1938.....	303	1,745,234.00	35,382.50	19,336.00	650,844.50	1,974,651.50	207,632.70	2,009,679.82
Calendar Year 1939.....	293	390,922.50	1,305.00	150.00	128,129.00	537,186.00	99,241.41	540,655.08
Calendar Year 1940.....	283	471,314.75	200.00	118,480.00	141,861.00	775,736.00	60,231.67	939,866.77
Calendar Year 1941.....	423	1,350,927.50	43,710.00	810.00	201,674.50	1,905,499.00	167,793.57	2,035,547.18
Calendar Year 1942.....	209	325,797.00	9,950.00		38,246.00	247,933.00	40,426.74	356,924.13
TOTALS .....	3,937	5,963,431.52	250,337.25	352,780.50	1,620,034.40	6,953,608.00	\$ 767,603.38	\$ 8,096,932.65

## SUMMARY OF FIRE LOSSES WITHIN AND OUTSIDE ALBERTA FOREST RESERVES

Period	Number of Fires	Area (Acres)	Salvable Timber M.f.b.m.	Salvable Timber (Cords)	Unsalvable Timber M.f.b.m.	Unsalvable Timber (Cords)	Cost of Suppression	Total Loss
October 1, 1930 to March 31, 1931	56	11,187.115	155.00	107,285.00	5.75	129.00	\$ 1,238.31	\$ 80,022.54
April 1, 1931 to December 31, 1931	622	604,876.12	136,906.50	28,078.00	128,986.23	796,224.50	99,713.01	867,487.26
Calendar Year 1932	379	136,117.89	282.75	15,154.50	44,472.15	133,748.60	18,811.55	160,876.31
Calendar Year 1933	288	93,765.00	4,410.25	12,359.00	60,882.75	167,959.00	35,381.67	195,805.36
Calendar Year 1934	240	58,870.00	4,914.50	12,359.00	3,208.50	224,014.00	38,169.02	126,021.64
Calendar Year 1935	97	6,319.75	160.00	1,195.00	1,513.00	5,431.00	1,653.46	5,768.00
Calendar Year 1936	248	204,454.00	9,947.00	23,141.00	885,851.00	770,611.00	122,542.29	1,549,930.30
Calendar Year 1937	375	835,259.00	14,702.00	33,113.00	289,044.00	609,845.50	55,339.66	1,088,465.95
Calendar Year 1938	521	1,758,145.50	49,122.50	23,059.00	651,363.00	1,974,653.00	217,055.49	2,046,236.27
Calendar Year 1939	499	429,139.25	1,597.00	21,318.00	132,358.00	591,907.00	148,298.09	642,110.21
Calendar Year 1940	313	474,244.25	1,200.00	880.00	141,864.00	779,165.00	67,231.48	954,031.02
Calendar Year 1941	415	1,355,424.50	43,710.00	121,480.00	202,020.00	1,907,327.00	170,488.53	2,050,979.43
Calendar Year 1942	215	325,815.75	9,950.00	810.00	38,246.00	247,933.00	40,546.17	356,933.88
TOTALS	4,298	6,293,818.125	277,057.50	387,872.50	2,579,814.38	8,209,147.60	\$1,016,468.73	\$10,124,668.17



*Timber Industry.*—It was only the continuing problem of labour shortage which prevented the year under review from surpassing the previous year's record production in the manufacture of lumber. With this obstacle in the way, however, a shortage of 43,641,704 F.B.M. is reported in the statement which follows.

An increase in the number of timber berths and special timber berths were, however, granted to the smaller operators, the activities from which prevented the above mentioned decrease from becoming as great as the figure which at one time during the year had been estimated.

LUMBER MANUFACTURED FROM TIMBER CUT ON PROVINCIAL AND  
SCHOOL LANDS AND ON FOREST RESERVES

Fiscal Year	F.B.M.
1935-36 .....	89,919,530
1936-37 .....	104,492,420
1937-38 .....	146,301,510
1938-39 .....	122,450,579
1939-40 .....	131,497,021
1940-41 .....	185,752,504
1941-42 .....	272,345,129
1942-43 .....	228,703,425
Total .....	1,281,462,118
Decrease this year in comparison with last .....	43,641,704

#### FISHERIES

*Fish Hatchery at Calgary.*—Through the generosity of Mr. James Cross of Calgary, who has made all the capital expenditures with regard to the erection of the Calgary Fish Hatchery, adjoining the Calgary Brewing and Malting Company's building, the province now operates the largest game fish hatchery in Canada.

Mr. Cross has also been instrumental in securing the most modern and up-to-date equipment for use in connection with the propagation of fish. Due to his public spirited action, greatly increased stocking of our streams will take place for the general benefit of all Alberta anglers.

*Game Fish.*—The introduction of a new angling permit, good for three consecutive days, was made during this year. The object was for the accommodation of anglers who, with only limited time to spare, might otherwise not consider a season's permit.

*Rearing Ponds.*—The construction of rearing ponds by a number of Fish and Game Associations, coupled with the co-operative work resulting from same, was a valued and appreciable effort of the year.

In addition to this, three large rearing ponds were, with assistance from Forestry officials, completed on a spring site at Bickerdike, near Edson. All rearing ponds were stocked with trout fingerlings.

*Distribution of Game Fish.*—Distribution of game fish during the year from rearing ponds to Alberta streams and lakes—trout, perch and forage minnows—totalled 1,318,450.

*Whitefish Hatchery at Lesser Slave Lake.*—A total of 72,850,000 whitefish eggs—eyed and fertilized—were distributed in twenty Alberta lakes and also in the Whitefish River from the Whitefish Hatchery at Lesser Slave Lake.

*Commercial Fishing.*—Commercial fish of all species taken during the year totalled 6,158,883 pounds.

In this connection the following comparative table is given.

TOTAL AMOUNT OF FISH TAKEN FOR COMMERCIAL PURPOSES  
AND VALUATIONS

Fiscal Year	Weight (lbs.)	Value to fishermen	Value as marketed
*1930-31 .....	1,851,848	\$ 70,624	\$ 94,032
1931-32 .....	3,337,980	115,928	189,928
1932-33 .....	2,655,214	94,440	130,809
1933-34 .....	3,566,356	131,124	200,755
1934-35 .....	4,059,436	145,190	244,071
1935-36 .....	4,921,542	200,394	287,726
1936-37 .....	6,029,857	252,773	385,344
1937-38 .....	6,201,917	252,771	464,842
1938-39 .....	7,242,746	236,851	463,457
1939-40 .....	8,661,781	202,107	574,732
1940-41 .....	7,285,582	206,191	442,752
1941-42 .....	5,920,099	198,400	437,137
1942-43 .....	6,158,883	286,184	607,969
Totals.....	67,893,241	\$2,392,977	\$4,523,554
Increase this year in comparison with last.....	238,784	\$ 87,784	\$ 170,832

SUMMARY OF CONFISCATIONS AND PROSECUTIONS CAUSED BY INFRACTIONS  
OF THE FISHERIES REGULATIONS

Fiscal Year	Confiscations	Prosecutions
1937-38 .....	188	132
1938-39 .....	116	86
1939-40 .....	119	134
1940-41 .....	112	107
1941-42 .....	59	78
1942-43 .....	31	33
Totals.....	625	570
Decreases this year in comparison with last.....	28	45

\*Six months period.

### GAME

*Registered Trap-lines.*—Registered trap-line certificates issued during the year under review were two and one half times the number issued during the preceding year. The number of such registrations in the northern part of the province continued to such an extent, that at the close of the year it was felt consideration could henceforth be given to the discontinuance of the general \$2.00 trapping licence. Holders of this licence were therefore advised that in the following year these would be discontinued and that registered trap-lines must be secured to take their places.

*Cougar and Wolf Bounty.*—Due to reduction of cougar bounties in British Columbia, similar reductions became necessary in Alberta. Resulting from discontinuance of the wolf bounty in Saskatchewan, Alberta was compelled to recognize such bounties only on the western side of the province, where the Province of British Columbia was paying wolf bounties. Alberta, however, raised the payment of the bounty on wolf pups from \$5.00 to \$10.00.

*Big Game and Birds Plentiful.*—Big game was in abundance and the catch in fur was good with prices which rose quickly from low to high through the season. Native birds, together with the newly arrived pheasant, were also noticeably increased.

## ALBERTA FUR PRODUCTION

Season	Number of Pelts	Valuation
1930-31 .....	941,401	\$1,118,027
1931-32 .....	1,145,888	877,331
1932-33 .....	1,215,094	1,074,884
1933-34 .....	2,270,503	1,533,799
1934-35 .....	1,850,625	1,474,530
1935-36 .....	1,304,966	1,540,077
1936-37 .....	2,068,118	2,170,121
1937-38 .....	1,476,698	1,156,013
1938-39 .....	2,273,826	1,345,130
1939-40 .....	3,977,118	2,514,878
1940-41 .....	2,601,424	2,806,073
1941-42 .....	11,713,686	5,162,635
1942-43 .....	2,468,306	5,067,172
Totals.....	35,307,653	\$27,840,670
Decreases this year in comparison with last...	9,245,380	\$ 95,463

NOTE: The seasons given in the above table are from July 1st of one year to June 30th of the next. The heavy decrease in number of pelts for 1942-43 is due to the unusual number of rabbit and squirrel pelts taken in 1941-42.

## MINING LANDS ADMINISTRATION

Information dealing with quantities and valuations of Alberta's non-metallic minerals produced during the year are given in the Report of the Mining Lands Division. To this is added details covering mineral rights, solid, liquid and gaseous, revenue from fees, rentals, bonuses and royalties, reservations of areas for geological examination and acquisition of varying forms of mineral leases.

*Leases dealt with.*—Totals of leases issued from October 1st—date of natural resources transfer—to March 31st, 1943, are shown as follows: Leases active at date of transfer, 19,635; issued, 10,558; reinstated, 116; divided, 380; cancelled, 27,836; renewed, 354; active as at March 31st, 1943, 2,499. Areas covered by same are given in a separate statement.

*Coal Royalties.*—The table dealing with royalties in coal, produced in former years, is shown from the fiscal years 1907-08 to 1942-43 inclusive.

*Salt.*—Salt production showed still another increase in the year under review, reaching the record total of 22,179 tons, and therefore continued to show an increase in demand for this home product

## SALT PRODUCTION

Calendar Year	Tons	Valuation
1938 .....	3,995	\$ 39,950
1939 .....	3,322	33,220
1940 .....	8,524	85,240
1941 .....	16,610	166,100
1942 .....	22,179	221,790
Totals.....	54,630	\$546,300
Increase this year in comparison with last.....	5,569	\$ 55,690

NOTE: The valuation of \$10.00 per ton, which is shown, is based on a well-head price only, and has no relation to a wholesale price of the commodity, which would be considerably higher. Alberta salt development started in 1938. Prior to that year, production was insignificant and no official figures are available.

## PETROLEUM AND NATURAL GAS

*Number of Turner Valley Crude Oil Wells.*—Dating from June 16th, 1936, when crude oil was discovered in Turner Valley's limestone, annual totals, dealing with the completion of wells, were as follows:—

Calendar Year	Number of Wells
1936 .....	2
1937 .....	22
1938 .....	36
1939 .....	34
1940 .....	36
1941 .....	47
1942 .....	20
Total .....	197
Decrease in comparison with last year .....	27

## NATURAL GAS CONSUMPTION

Calendar Year	Mcf.
1941 .....	28,305,429
1942 .....	32,443,588

*Petroleum and Natural Gas Conservation Board.*—The appointment of Mr. J. J. Frawley, K.C., to Chairman of the Petroleum and Natural Gas Conservation Board and Mr. M. D. Kemp to Board Member took place during 1942. Mr. Frawley's appointment fills the vacancy created by the absence of Mr. Robert E. Allen, former Chairman, whose services were loaned to the United States Government at the request of Mr. Harold L. Ickes, Co-ordinator, at Washington, D.C.

*Turner Valley Development.*—Alberta's oil production in the calendar year 1942 exceeded, for the first time in her history, the ten million barrel mark, with an increase over 1941 of 227,653 barrels.

*Other Alberta Fields.*—Production from oil fields outside of Turner Valley for 1942 was as follows:

Field	Barrels
Vermilion .....	63,793
Taber .....	29,819
Wainwright .....	14,510
Princess .....	10,478
Red Coulee .....	10,107
Tilley .....	5,718
Dina .....	2,780
Del Bonita .....	1,653
Lloydminster .....	477
Total .....	139,335

In comparison with last year's production of 78,300 barrels from fields outside of Turner Valley, this total for 1942 shows an increase of almost one hundred per cent.

Vermilion and Taber are mainly responsible for this advance. Oil production from Vermilion field during the past two years has advanced in a manner which has been definitely encouraging. With an established market for its product, which is recovered by speedy drilling from shallow horizons, coupled with its brief but successful history, there is justification for the hope that this prairie oil field may develop into another major producing area within the province, of which there is now such urgent need.

Taber's rather spectacular advance, which, within the latter part of 1942 became sufficiently noticeable to place this area in second place amongst Alberta's producing oil fields outside of Turner Valley, was another satisfying development feature of 1942.

Reports regarding the Ram River No. 2 well test are awaited with interest. This area in the Foothills, about 100 miles West of Red Deer, contains in its

structure a formation of Devonian limestone, which, at the well's location, is present from the surface down.

Growing production of Alberta's oil fields, outside of Turner Valley, is significant and of first importance. A year or so ago such production was less than half of 1% of Turner Valley's total. In 1942 the figure rose to 1.37%. Whilst admitting that the difference between these totals is still a considerable one, the gap, nevertheless, is beginning at last to close.

*Development of Bituminous Sands.*—The fire at the McMurray Abasand plant, referred to in last year's report, caused serious delay in the important development work that was being carried out by this company in that area. The plant had just completed construction, and the production of crude oil, gasoline and diesel fuel oil was in operation, the production figures having been quoted in the last annual Oil Review.

Reconstruction which was handicapped by such present problems as priorities of steel, etc., was completed by mid-summer of 1942, and production was once again under way. From then to the end of November, 1942, the production totals were given as follows:

Bituminous sand mined .....	11,156 tons
Crude oil recovered from same .....	10,041 barrels

*Alberta Oil Production.*—On the next page is given an oil production table by calendar years from 1914 to 1942, inclusive, which is presented this year in greater detail than heretofore, giving cumulative as well as annual totals for all fields. This table contains certain revisions in totals, now made necessary by the receipt of additional data, which includes a deduction of 6,974 barrels in 1942 for storage loss at Vermilion.

Production totals of the four sub-divisions of Turner Valley's totals and the valuations—values of sales by primary producers—for each year are also shown.

*British Empire Production.*—Canada in 1942 once again took twelfth place amongst the world's oil producing countries, and took also a noticeable second place in British Empire oil production. With the loss of Brunei and Sarawak to the Japanese, the Empire oil countries were reduced from seven to five. Canada's percentage of the Empire's total for this year rose from 18.3 to 23.5. The following percentages covering 1942 oil production are given.

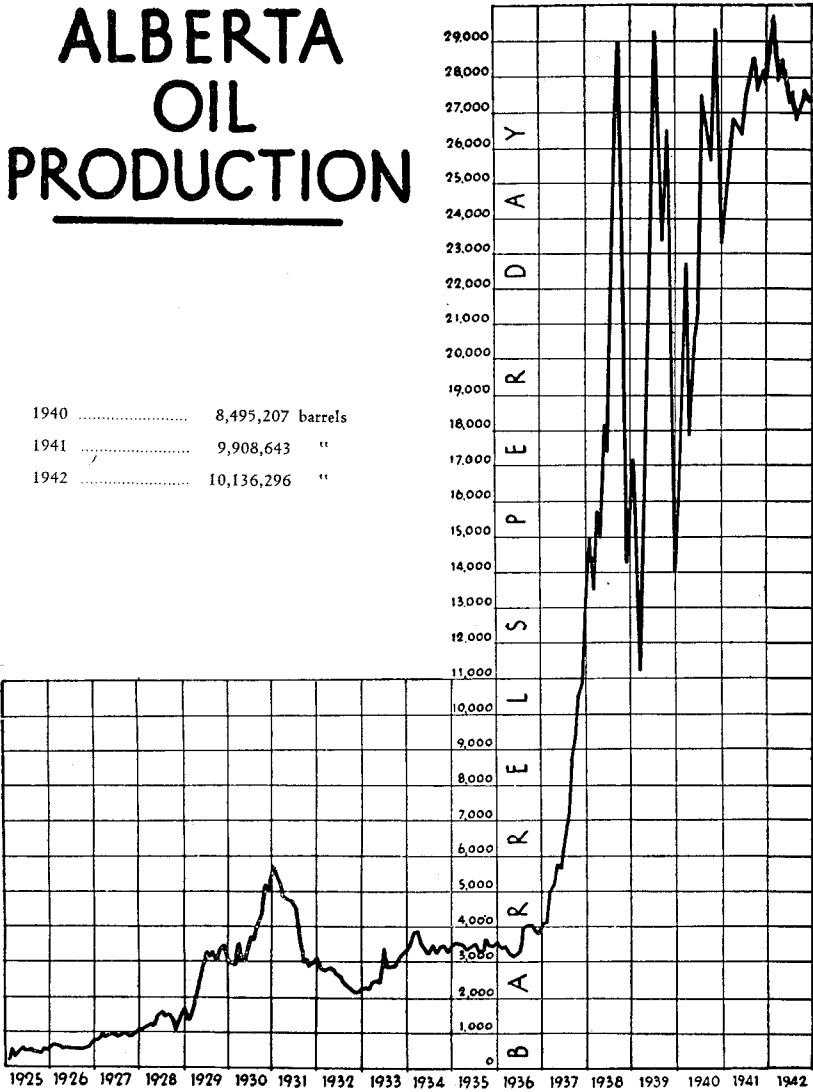
British Empire of World .....	2.15 per cent
Canada of British Empire .....	23.49 per cent
Alberta of Canada .....	97.86 per cent
Turner Valley of Alberta .....	98.61 per cent

In comparing the above percentages with those given in last year's report, a few slight changes will be noticed. Whilst a slight drop in British Empire of World percentages appears, Canada of British Empire has risen. Alberta of Canada is slightly reduced, resulting from the Northwest Territories entry into the field, and Turner Valley of Alberta is less as a result of oil production in fields outside of Turner Valley, which in 1942 almost doubled their output.

A comparative statement covering British Empire Oil production over a period of years is given on the next page.

# ALBERTA OIL PRODUCTION

1940 .....	8,495,207 barrels
1941 .....	9,908,643 "
1942 .....	10,136,296 "



DEPARTMENT OF LANDS & MINES, EDMONTON, JANUARY, 1942







## PETROLEUM PRODUCTION IN THE BRITISH EMPIRE, 1932 TO 1942 INCLUSIVE

Country	1932		1933		1934		1935		1936	
	Barrels	Per Cent	Barrels	Per Cent	Barrels	Per Cent	Barrels	Per Cent	Barrels	Per Cent
Trinidad .....	10,126,121	43.1	9,561,353	41.2	10,894,363	41.2	11,671,224	40.7	13,237,030	39.2
Canada .....	1,044,412	4.4	1,145,333	4.8	1,401,895	5.3	1,447,204	5.0	1,504,287	4.5
Bahrein Island .....	.....	.....	31,377	0.1	185,072	1.1	1,264,807	4.4	7,644,735	13.7
Burma .....	7,073,437	30.1	7,114,311	30.0	7,278,859	27.5	7,181,113	25.1	7,587,718	22.5
Brunei .....	1,200,026	5.1	2,035,656	8.6	2,705,350	10.2	3,302,905	11.5	3,296,938	9.7
India .....	1,743,878	7.4	1,628,803	6.9	1,921,863	7.3	2,037,810	7.1	1,978,329	5.8
Sarawak .....	2,329,733	9.9	2,206,815	9.3	1,942,591	7.4	1,776,593	6.2	1,547,882	4.6
Total British Empire .....	23,518,509	100.0	23,723,648	100.0	26,429,993	100.0	28,681,656	100.0	33,796,819	100.0
World Total .....	1,306,714,101	.....	1,438,767,449	.....	1,517,121,671	.....	1,651,993,118	.....	1,797,993,578	.....
Per Cent, British Empire of World .....	1.80	.....	1.65	.....	1.74	.....	1.74	.....	1.88	.....

Country	1937		1938		1939		1940		1941		1942	
	Barrels	Per Cent	Barrels	Per Cent	Barrels	Per Cent	Barrels	Per Cent	Barrels	Per Cent	Barrels	Per Cent
Trinidad .....	15,502,989	36.8	17,737,060	35.5	19,270,000	37.7	20,300,000	38.2	21,150,000	38.5	21,500,000	48.8
Canada .....	2,943,750	7.1	6,956,811	14.0	7,843,780	15.2	8,723,982	16.5	10,123,904	18.4	10,364,796†	23.5
Bahrein Island .....	7,762,264	18.4	8,298,000	16.7	7,588,560	14.8	7,200,000	13.5	7,070,000	12.9	7,250,000	16.4
Burma .....	7,847,553	18.5	7,499,500	15.0	7,396,000	14.4	7,750,000	14.6	7,900,000	14.3	2,500,000	5.6
Brunei .....	4,397,038	10.5	5,387,210	10.8	5,755,000	11.1	5,742,000	10.7	5,245,000	9.6	.....	.....
India .....	2,161,653	4.9	2,330,200	4.7	2,164,000	4.2	2,150,000	4.1	2,245,000	4.0	2,500,000	5.7
Sarawak .....	1,655,565	3.8	1,624,880	3.3	1,327,000	2.6	1,321,000	2.4	1,275,000	2.3	.....	.....
Total British Empire .....	42,270,812	100.0	49,833,661	100.0	51,344,340	100.0	53,186,982	100.0	55,008,904	100.0	44,114,796	100.0
World Total .....	2,046,650,389	.....	1,979,268,510	.....	2,068,667,520	.....	2,158,123,000	.....	2,227,125,000	.....	2,050,951,000	.....
Per Cent, British Empire of World .....	2.06	.....	2.51	.....	2.48	.....	2.46	.....	2.46	.....	2.15	.....

†In the total of 10,364,796 barrels shown in this table for Canada in 1942, 10,143,270 barrels or 97.86 per cent were produced in Alberta.

‡During the brief period, early in 1942 before the scorched earth policy was put into effect in Borneo, there was some oil production in both Brunei and Sarawak, but the totals are unknown.

## COAL

Alberta in 1942 produced 7,754,279 tons, valued at \$22,562,352, the highest tonnage ever produced in the province. The second highest year came in 1928. There is a difference exceeding 400,000 tons between these two years, the total for 1928 reaching 7,336,330 tons. Not included in the 1942 tonnage is coal mined by farmers under permit for their own use, which totalled 145 tons.

The development of Alberta's vast coal reserves represented the first pioneer mining industry in the province. The industry, started nearly sixty years ago, has progressed considerably over this period of time. In the first year—1886—Alberta mined 43,200 tons of coal, valued at \$81,112, to be compared with the production in 1942, the record year, of 7,754,279 tons, valued at \$22,562,352. Total production from 1886 to 1942, inclusive, is given at 188,703,011 tons, valued at \$578,335,289.

Alberta's present accessible coal reserves have been estimated at an approximate total of 61 billion tons. In considering this enormous potential area within the province, it must immediately be realized that only a small relationship exists between it and the relatively small annual totals of production which have appeared over this lengthy period, however spectacular the grand total may appear.

It is interesting to speculate as to just what heights these figures might reach if Alberta, which is the coal province as well as the oil province of Canada, were able to develop her coal on a scale more commensurate with her capacity to produce. Insufficient subventions, however, together with other problems, have prevented this in the past. The production table which follows shows totals from the date of the natural resources transfer to the province in 1930 up to 1942.

COAL PRODUCTION					
Calendar Year	Tonnage	Valuation	Calendar Year	Tonnage	Valuation
1930 .....	5,755,911	\$ 19,379,000	1937 .....	5,551,682	\$ 14,434,970
1931 .....	4,564,290	13,415,745	1938 .....	5,230,025	13,702,983
1932 .....	4,870,030	13,441,193	1939 .....	5,518,105	14,454,328
1933 .....	4,714,784	12,197,339	1940 .....	6,205,088	16,334,323
1934 .....	4,748,848	12,440,617	1941 .....	6,970,064	19,337,420
1935 .....	5,462,973	13,946,338	1942 .....	7,754,279	22,562,352
1936 .....	5,696,375	14,720,004			
TOTALS .....				73,042,454	\$200,366,612
Increase this year in comparison with last .....				784,215	\$ 3,224,932

*Disposition of Alberta Coal in 1942.*—Coal sold for consumption in Alberta totalled 1,474,795 tons; sold for consumption in other provinces of Canada, 2,733,485 tons; sold to the United States, 98,197 tons; sold to railway companies, 2,864,586 tons; used in making briquettes, 184,933 tons; used in making coke, 107,410 tons; used under colliery boilers, 168,193 tons; used by colliery railways, 6,551 tons; put to stock, 45,517 tons and put to waste 128,017 tons. These tonnages include coal lifted from stock and waste heaps, a total which is not included in the yearly production total already given.

## PRODUCTION OF COKE AND BRIQUETTES

Calendar Year	Coke (Tons)	Briquettes (Tons)
1930 .....	.....	24,111
1931 .....	.....	15,102
1932 .....	2,183	13,582
1933 .....	49,279	16,104
1934 .....	59,703	15,906
1935 .....	63,428	18,812
1936 .....	65,239	21,015
1937 .....	65,967	27,044
1938 .....	68,692	39,239
1939 .....	68,913	46,510
1940 .....	70,753	66,127
1941 .....	70,354	126,188
1942 .....	71,572	197,905
<b>TOTALS</b> .....	656,083	627,645
Increases this year in comparison with last .....	1,218	71,717

*Disposition of Electrical Power for Alberta Coal Mines in 1942.*—Purchased electrical power used in Alberta coal mines during the calendar year 1942, totalled:

## ELECTRICAL POWER USED FOR OPERATION OF ALBERTA COAL-MINES

Calendar Year	K.w.hrs.
1930 .....	25,003,606
1931 .....	16,918,625
1932 .....	14,875,890
1933 .....	17,611,959
1934 .....	19,447,621
1935 .....	23,111,373
1936 .....	24,912,243
1937 .....	25,483,749
1938 .....	24,611,920
1939 .....	27,575,926
1940 .....	31,660,119
1941 .....	35,973,384
1942 .....	41,491,573
<b>TOTAL</b> .....	328,677,988
Increase this year in comparison with last .....	5,518,189

## SHALE AND CLAY MINED

Operation of 5 shale pits was carried out during the year from which 29,115 tons of shale and clay, 10,760,526 bricks and 5,879 tons of hollow tile were produced.

## SHALE AND CLAY MINED

Calendar Year	Shale and Clay Mined (Tons)	Bricks Manufactured (Number)	Tiles Manufactured (Tons)
1930 .....	67,517	22,007,045	.....
1931 .....	23,855	7,091,080	2,825
1932 .....	8,446	3,444,010	182
1933 .....	3,234	1,221,060	.....
1934 .....	13,561	4,398,032	1,171
1935 .....	20,258	7,349,300	.....
1936 .....	24,588	8,963,384	.....
1937 .....	27,144	9,946,794	252
1938 .....	19,929	7,609,314	1,640
1939 .....	27,236	8,194,685	2,649
1940 .....	35,614	9,885,326	5,712
1941 .....	44,109	13,593,050	8,080
1942 .....	29,115	10,760,526	5,879
<b>TOTALS</b> .....	344,606	114,463,606	28,390
Decreases this year in comparison with last .....	14,994	2,832,524	2,201

*Mines Branch Annual Report.*—Statistical information covering Alberta's coal-mining activities and production of shale and clay mined for the calendar year 1942 is given in detail in the published Annual Report of the Mines Branch, Department of Lands and Mines, for this period, which appears as a separate publication to this report.

## TECHNICAL DIVISION

*Issue of Notifications (Land Patents).*—The following comparative statement shows the number of notifications and acreage covered thereby for the fiscal years from 1930-31 to 1942-43, inclusive:

NOTIFICATIONS ISSUED		
Fiscal Year	Number of Notifications	Area, Acres
1930-31 .....	23	3,019.710
1931-32 .....	784	111,424.478
1932-33 .....	1,260	178,887.233
1933-34 .....	1,106	165,224.553
1934-35 .....	2,006	324,611.398
1935-36 .....	2,965	453,529.126
1936-37 .....	2,231	325,615.379
1937-38 .....	2,266	382,382.437
1938-39 .....	2,874	517,435.896
1939-40 .....	2,097	301,431.972
1940-41 .....	2,058	295,649.119
1941-42 .....	1,563	229,566.606
1942-43 .....	1,516	229,699.519
<b>TOTALS</b> .....	<b>22,749</b>	<b>3,498,477.426</b>
Increases and Decreases in comparison with last year....	—47	+ 132.913

*Exchanges of Lands.*—Under the exchange of land policy, 31 residents of the province, mostly old time settlers of the Special Areas, benefitted by exchanging their present land holdings for other areas of equal size in locations which proved to be more favourable. Details of these exchanges are given in the Technical Division's report for the period under review.

*Government Controlled Lands in Special Areas.*—Three maps also accompany the Division's report showing government lands—unpatented Crown lands, tax recovery and revestment lands—in the areas of Sounding Creek-Neutral Hills, Berry Creek-Sullivan Lake and Bow West.

*Additions to Special Areas.*—Two additional areas are now included in the Special Areas district, details of which are given in the Division's report.

*Air Landing Fields.*—Under this heading detailed information is given regarding the many activities surrounding provincial air landing fields.

*Maps and Plans.*—Completion is now reported of the Alberta map showing general standing of lands and their different classifications. The information is given on sectional sheet maps, with scale three miles to the inch. These are mounted on linen and bound in two volumes. Details of the completion of other maps are also given.

*Photostat Machine.*—Use of the photostat machine was even more general than in the previous record year. The number and variety of applications for which the machine was needed are described in the Division's report.

*Recordak and Mimeograph Machines.*—The work completed during the year by these two machines, particularly the former in its recording on films of a great number of registers and files, relieving thereby much congestion in storage space, is discussed in detail.

*Mineral Taxation.*—A review of the Mineral Taxation Act of 1941 is dealt with regarding its administration. For the fiscal year 1941-42, \$75,120.93 was collected under the Act, as compared with \$94,364.68 for 1942-43.

## STAFF

With further depletions of staff throughout the year, added to new complications arising out of wartime conditions, the functions of the Department were carried out with increasing difficulty. In face of these problems, which included

of course the inexperience of new personnel, the staff of this Department satisfactorily carried out its duties, which were numerous and responsible. As stated in last year's report this constituted important service on the home front—to keep things going for the present and at the same time prepare as much as possible for the many future responsibilities which may present themselves in a new world of reconstruction.

I wish to express my appreciation once more to the departmental staff, not only for their realization of all these matters, but also for service well given in the face of many problems.

Individual detailed reports from the various Divisions of the Department follow.

Your obedient servant,

J. HARVIE,

*Deputy Minister.*

Edmonton, January 28th, 1944.

## Active Service Enlistments

### REPORT OF THE STATISTICIAN, J. L. IRWIN

The list of former members of this Department, at present on Active Service, now totals 66. Sixty-nine enlistments have been made but three names have been taken off. The first is that of D. J. Young, R.C.A.F., who tragically lost his life during flying operations, which was mentioned in last year's Report. The other two are A. Peart of the Edmonton Regt. (49th Bn., C.E.F.) and Miss M. L. Wedenkamp, W.D., R.C.A.F., who have now received their discharges.

Active Service promotions since the last Report was issued contain the names of E. P. Shaver, R.C.N.V.R. and Miss Pearl M. Brent.

Lieutenant Commander Shaver is now Commander Shaver, stationed on the Canada east coast, and Miss Brent has been promoted from Captain to Major, and is at present the Officer Commanding 103 Depot, C.W.A.C., at Kingston, Ontario.

With reference to Active Service transfers from this Department, as stated in the last Report, civil servants, who are on the permanent list, are given indefinite leave of absence until the end of the war, or until they are discharged from whatever Branch of the Service with which they have been engaged, when they become entitled to re-employment in the same capacity as, or similar capacity to that which existed prior to their enlistment.

In the last Report but one, special mention was made of Squadron Leader—at that time Pilot Officer—D. S. Florence, formerly of this Department, to the effect that he had been awarded the Distinguished Flying Cross.

Within recent months news has come through of a further award—a bar to his D.F.C. The presentation was made at Uplands airport, Ottawa, by the Governor General, the Earl of Athlone. Squadron Leader Florence, a former navigator overseas, is now senior navigation officer with a mail squadron. The receipt of this new honour is something of which the Department, needless to say, is proud, and for which it sends to the recipient its warmest congratulations.

Once again the members of this Department send to their old friends of the Department, now on Active Service in the Navy, Army and Air Force, the most earnest wishes for their safe and happy return.

The present Active Service list of the Department is as follows:—

#### MEMBERS OF THE STAFF WHO HAVE ENLISTED FOR ACTIVE SERVICE UP TO AND INCLUDING JANUARY 18th, 1944

Adin, Robert Garbutt	June 30th, 1941	R.C.A.F.
Alexander, John Playfair	Nov. 25th, 1939	R.C.A.F.
Ambrose, George Russell	June 9th, 1940	Veterans' Home Guard
Anderson, Charles Graham	June 30th, 1941	R.C.A.F.
Arcand, Romeo	July 1st, 1940	R.C.A.F.
Baker, Alma Richard	Feb. 13th, 1943	R.C.A.F.
Barber, James Donald	Jan. 8th, 1942	R.C.A.F.
Barnard, Edmund Dunbar	Sept. 6th, 1939	R.C.C.S.
Baxter, Robert Daniel	Nov. 13th, 1939	R.C.A.M.C.
Bennett, Harold Enniss	May 16th, 1942	R.C.A.F.
Bowen, Richard Ludger	June 25th, 1940	Calgary Highlanders
Brennan, William Robert	Aug. 30th, 1941	R.C.A.F.
Brent, Pearl Minerva	Oct. 28th, 1941	C.W.A.C.
Brick, Hiram Allan	May 31st, 1941	R.C.A.F.
Browne, Owen	Sept. 9th, 1939	Edmonton Regiment
Bryant, Harold James Patrick	Feb. 1st, 1941	Can. Provost Corps
Campbell, Jack Gordon	July 5th, 1942	Edmonton Fusiliers
Cragg, William Edward	Oct. 31st, 1941	Artillery
Craig, Ace Vincent	May 6th, 1940	R.C.N.V.R.
Craig, Helen Mary	June 2nd, 1942	R.C.A.F. (W.D.)
Dalphond, Melville	June 1st, 1940	R.C.A.F.

DeLancey, Arthur L.	Dec. 20th, 1942	R.C.N.V.R.
Dempsey, Harry Varner	May 1st, 1943	R.C.A.F.
Edgecombe, Rodney Wilson	Jan. 17th, 1944	R.C.A.F.
Fraser, Carroll Monroe	Sept. 22nd, 1941	R.C.A.F.
Gauthier, Lawrence Peter	Feb. 15th, 1941	R.C.A.F.
Gowdie, Thomas	Oct. 31st, 1939	R.C.M.P. for duration
Hinman, Grant W.	June 30th, 1942	R.C.A.F.
Hughes, Charles Granville	April 3rd, 1943	Canadian Infantry
Hutchinson, James Alexander	Oct. 27th, 1939	R.C.A.F.
Keats, Frederick Vernon	April 22nd, 1940	R.C.A.F.
Krause, Reinholdt Frederick	Sept. 18th, 1939	61st Battery, R.C.A.
Langford, Edward	Oct. 13th, 1942	Canadian Army
Lashbrook, Charles S. H.	April 22nd, 1942	R.C.A.F.
Lavoie, Arnold James	June 1st, 1940	South Alta. Regiment
Longson, Burgess	July 29th, 1940	R.C.A.S.C.
Macomber, Ralph	Aug. 16th, 1941	R.C.A.F.
Magneison, James Alexander	May 28th, 1941	R.C.A.F.
Manelulik, Lydia	June 2nd, 1942	R.C.A.F. (W.D.)
Marr, Francis Barbour	Aug. 30th, 1940	R.C.N.V.R.
Maynard, George Frederick	April 11th, 1942	R.C.A.F.
Miller, Ethelyn Maureen	Sept. 27th, 1941	C.W.A.C.
McCardell, William Henry	March 13th, 1940	R.C.A.F.
McCracken, Rodney Ellis	Oct. 31st, 1942	R.C.A.F.
McKee, Robert Maxwell	Jan. 4th, 1942	R.C.A.F.
McKinnon, Ian Nicholson	May 2nd, 1940	R.C.A.F.
Newsome, Roland Thomas	Sept. 21st, 1940	R.C.N.V.R.
Patrick, John William	March 8th, 1942	R.C.A.F.
Perry, Charles Edward	Jan. 31st, 1943	R.C.A.F.
Pinkerton, Harold	Dec. 10th, 1941	R.C.A.F.
Rees, David Brinley	Nov. 23rd, 1940	R.C.A.F.
Robertson, Ernest Ronald	May 7th, 1941	Anti-Tank Battery
Russell, Isobel Adair	Sept. 16th, 1941	C.W.A.C.
Scott, Charles Wyard	May 12th, 1942	R.C.A.F.
Shaver, Everett Phelps	Jan. 31st, 1940	R.C.N.V.R.
Shillabeer, Walter Ernest	Oct. 31st, 1939	R.C.N.V.R.
Sloan, Gilbert K.	May 28th, 1941	R.C.A.F.
Smith, Donald Bruce	May 15th, 1943	R.C.N.V.R.
Smith, Elizabeth Victoria	March 16th, 1942	C.W.A.C.
Sparrow, Francis Devereaux	July 28th, 1941	R.C.A.F.
Steffin, Paul Nick	May 16th, 1942	R.C.A.F.
Strate, Lewis Dee	May 20th, 1941	R.C.A.S.C.
Sturrock, Edward Neilson	Jan. 18th, 1942	R.C.A. Pay Corps
Waikle, L. L.	Feb. 10th, 1942	Veterans' Home Guard
Walker, Daniel Revie	Aug. 15th, 1940	R.C.A.F.
Yakimchuk, Sam	Nov. 10th, 1942	R.C.A.F.

## Provincial and School Lands Administration

REPORT OF THE DIRECTOR OF LANDS, V. A. WOOD

### PROVINCIAL LANDS

The shift out of wheat into coarse grains and flax-seed was again encouraged by the Federal Government, as a result of the wheat acreage reduction programme.

The Department completed landlord applications for wheat acreage reduction payments for all leases and cultivation permits and, up to the end of the fiscal year, the total amount received was as follows:—

Special Areas .....	\$11,907.85
Tax Recovery .....	2,555.39
School Lands .....	10,736.16
Provincial Lands .....	977.90
	<hr/>
	\$26,177.30

Cool, wet weather delayed seeding operations, and very little grain was in the ground by the 1st of May, 1942, except in the south-east portion of the province and in the Peace River district.

Due to rust, frost and heavy rains at harvest, the grade of all grains was not as high as that of last year. The wheat crop this past year, however, was a record in average yield per acre. The wheat yield varied from 16 bushels in a few districts to 40 bushels in other areas. Oat yield varied from 40 to 80 bushels, barley from 25 to 50, flax from 5 to 20 and rye from 10 to 30.

Threshing progress was very disappointing on account of cold and snow and in some areas threshing had not been completed by the end of the year.

The quota system was again in operation and at the end of the fiscal year had only reached 14 bushels to the acre. This has caused a great reduction in revenue, as the Department could only insist on payments proportionate to the crop share. In some cases lessees purchased the Department's share of coarse grains, but for the most part wheat was stored on the leaseholds.

Last year the quota raised rapidly and was removed altogether before the end of the calendar year.

The Canadian Wheat Board remained in operation with a price of 90c per bushel, No. 1 Northern, at Port Arthur or Vancouver, an advance of 20% over last year.

This Department continued its policy of not accepting any applications for cultivation and grazing leases, except in cases where at least one-third of the total area applied for already had been cultivated.

Owing to Dominion Government regulations to cut down travel by automobile, the practice of inspectors calling upon homestead entrants to accept applications for patent was discontinued. In place of this, the inspectors held temporary sub-agencies at convenient points to accept such applications and transact other departmental business. Temporary sub-agencies held totalled 45, and 545 items of business were received from these offices.

Land agencies were maintained at Calgary and Peace River. Sub-agencies were maintained at Bonnyville, Lac La Biche, Athabaska, Hines Creek and Grande Prairie. The Lethbridge sub-agency was discontinued.

Instructions were received that the minimum requirement for a homestead, second homestead or soldier grant would be 15 acres of breaking at a cost of not



less than \$10.00 per acre for clearing and breaking, and the usual proportion of cultivation. Where residence has been performed in the vicinity, a minimum of 25 acres must be broken at a cost of \$10.00 per acre for clearing and breaking.

Additional areas were added to the agricultural lease area in the Peace River district and west of the 5th meridian, in the Edmonton district.

The following regulations were established by Order in Council during the fiscal year:—

Provincial Grazing Reserves,

Control and Supervision of Provincial Grazing Reserves and Community Pastures by an Incorporated Association,

Conditions under which Right of Entry may be obtained upon land,

Miscellaneous Leases for residential, commercial, fur ranching, gardening and other purposes which do not come under any other set of lease regulations,

Six year Cultivation Leases in the south-eastern portion of the Province to applicants who had cultivated the area previous to making application.

In view of representations received, the commencement date for cutting hay in 1942 on provincial and school lands was changed from the 25th to the 10th of July.

With reference to lessees on active service, a ruling was received that it would not be necessary for a lessee's wife to furnish a power of attorney when her husband was absent on such service, with a view to assuming his responsibility.

Regarding the drafting Recommendations to Council, instructions were received that each Divisional head of the Department should assist the Departmental Solicitor by becoming responsible for this undertaking.

#### SOIL SURVEY INSPECTIONS

Requests for inspections outstanding as at April 1st, 1942.....	121
Reports called, April 1st, 1942 to March 31st, 1943.....	207
Reports cancelled, April 1st, 1942 to March 31st, 1943.....	9
Reports received, April 1st, 1942 to March 31st, 1943.....	233
Reports outstanding as at March 31st, 1943.....	86

The area covered by the Soil Survey Party during the season of 1942, was as follows:

Township 46, Range 3, West 5th M.	West of Railroad
Township 46, Range 4, West 5th M.	West of Railroad
Township 46, Range 5, West 5th M.	
Township 46, Range 6, West 5th M.	
Township 46, Range 7, West 5th M.	
Township 45, Range 3, West 5th M.	West of Railroad
Township 45, Range 4, West 5th M.	
Township 45, Range 5, West 5th M.	
Township 45, Range 6, West 5th M.	
Township 45, Range 7, West 5th M.	
Township 44, Range 3, West 5th M.	West of Railroad.
Township 44, Range 4, West 5th M.	
Township 44, Range 5, West 5th M.	
Township 43, Range 4, West 5th M.	
Township 43, Range 5, West 5th M.	
Township 42, Range 4, West 5th M.	
Township 42, Range 5, West 5th M.	
Township 41, Range 4, West 5th M.	
Township 41, Range 5, West 5th M.	

This survey was carried out with the object of preparing a soil classification map of the area and to determine the land suitable for settlement. The regulations governing the issue of agricultural leases were used as a basis for classification as to the suitability of the land for settlement purposes.

Lands suitable for immediate settlement include those quarter sections where the soil is suitable for continued crop production. Lands unsuitable for cultivation include those quarter sections having less than 50% of their area suitable for cultivation due to poor soil, very rough topography or very stony.

Lands unsuitable for settlement at present, but which may become suitable at some future time, are those quarter sections which at the present time have too much muskeg, too heavy clearing or are inaccessible to schools, towns and other facilities.

The survey was carried out on a quarter section basis, that is to say, each quarter section was inspected individually and soil samples taken at several different places on the quarter. The soil was classified in the field, and the profile or profiles noted in a field book.

In addition to the soil classification, the following information was also recorded:

- (a) Topography.
- (b) Extent and kind of tree covering.
- \* (c) Improvements and value, if any.
- (d) The approximate cost of clearing and breaking the land.
- (e) The area suitable for cultivation.
- (f) The value of the land.

\*Improvements were valued on Crown lands only.

A total of 2,414 quarter sections was covered in all by the soil survey party during the 1942 season. Of this number 940 were Crown lands, the remainder being patented lands or unpatented homesteads.

The area covered lies entirely within the grey wooded soil belt, the soil varying from first-class to third-class grey wooded. Approximately 15% of the area is muskeg and swamp land which is unsuitable for cultivation at the present time. Part of the muskeg land will be excellent farm land after it is dried out and the moss cover either decayed or burned off.

Approximately 14% of the Crown lands or 132 quarter sections were found to be unsuitable at the present time, due to the high cost of clearing. These lands could be brought under cultivation at a much lower cost and could be economically cultivated if power machinery were used.

Approximately 65% or 620 quarter sections were classified as unsuitable for cultivation, due to either poor soil or rough topography. Quarter sections with less than 50% of their area suitable for cultivation by reasons of unsuitable soil or rough topography are in this class. Generally speaking all third-class grey wooded soil was considered unsuitable at the present time. A total of 188 quarter sections, or 21%, was classified as suitable for immediate settlement.

Detailed reports on all Crown lands are on the general land file, and a copy is on file in the Technical Division. Accompanying the soil report are two maps; one showing the classification of Crown lands inspected, the other showing the major soil zones in this area.

The following is a summary of the work performed by the field inspection staff:—

Requests for inspections outstanding as at April 1st, 1942 .....	760
Reports called for April 1st, 1942 to March 31st, 1943 .....	863
Reports cancelled April 1st, 1942 to March 31st, 1943 (due to gasoline rationing and changes in regulation) .....	409
Reports received April 1st, 1942 to March 31st, 1943 .....	763
Reports outstanding as at March 31st, 1943 .....	451

This work was carried out by four full time inspectors and one part time inspector.

The following statement gives some idea of the transactions of this Division during the fiscal year:—

Homestead and soldier grant entries cancelled .....	873
Applications for patent received .....	1,281
Notifications for title issued .....	1,160
Applications for title on hand as at the 31st of March, 1943 .....	1,937

Sales granted during the fiscal year .....	86
Sales cancelled .....	9
Active sales as at March 31st, 1943 .....	250
Assignments registered .....	129
Agricultural Leases:	
Leases active as at March 31st, 1942—Area 50,175.96 acres .....	289
Leases issued during fiscal year—Area 29,981.72 acres .....	170
Leases cancelled during fiscal year—Area 9,567.86 acres .....	58
Leases in force as at the 31st of March, 1943—Area 70,589.82 acres .....	401
Accrued Area Leases:	
Leases active as at March 31st, 1942—Area 38,375.84 acres .....	452
Leases issued during the fiscal year—Area 5,716.69 acres .....	53
Leases cancelled during fiscal year—Area 2,795.92 acres .....	27
Leases in force as at 31st March, 1943—Area 41,296.61 acres .....	478
Licences of Occupation:	
Licences active as at 31st March, 1942 .....	94
Licences issued during fiscal year .....	13
Licences cancelled during fiscal year .....	2
Licences in force as at March 31st, 1943 .....	105
Townsite Leases:	
Leases active as at 31st March, 1942 .....	15
Leases issued during fiscal year .....	.....
Leases cancelled during fiscal year .....	.....
Leases in force as at 31st March, 1943 .....	15
Mineral Surface Leases:	
Leases active as at 31st March, 1942 .....	18
Leases issued during fiscal year .....	1
Leases cancelled during fiscal year .....	3
Leases in force as at March 31st, 1943 .....	16
Applications for right of entry .....	8
Fur Farm Leases:	
Leases active as at 31st March, 1942 .....	9
Leases issued during fiscal year .....	2
Leases cancelled during fiscal year .....	2
Leases in force as at 31st March, 1943 .....	9
6 and 10 year Cultivation and Grazing Leases:	
Leases active as at 31st March, 1942—Area 65,659.95 acres .....	368
Leases issued during the fiscal year—Area 1,976.89 acres .....	13
Leases cancelled during the fiscal year—Area 12,720.18 acres .....	79
Leases in force as at 31st March, 1943—Area 54,916.64 acres .....	302
Renewal Cultivation and Grazing Leases:	
Renewal leases active as at 31st March, 1942—Area 22,573.11 acres .....	129
Renewal leases issued during fiscal year—Area 2,709.71 acres .....	17
Renewal leases cancelled during fiscal year—Area 160 acres .....	1
Renewal leases in force as at 31st March, 1943—Area 25,122.82 acres .....	145
21 Year Cultivation and Grazing Leases:	
Leases active as at 31st March, 1942—Area 2,070.93 acres .....	7
Leases issued during fiscal year .....	.....
Leases cancelled during fiscal year .....	.....
Leases in force as at 31st March, 1943—Area 2,070.93 acres .....	7
Cultivation Leases in the south-eastern part of the Province:	
Leases active as at 31st March, 1942 .....	.....
Leases issued during fiscal year—Area 7,448.96 acres .....	38
Leases cancelled during the fiscal year .....	.....
Leases in force as at 31st March, 1943—Area 7,448.96 acres .....	38
6 Year Cultivation and Grazing Leases (Special Areas):	
Leases active as at 31st March, 1942 .....	.....
Leases issued during fiscal year—Area 54,050.91 acres .....	188
Leases cancelled during fiscal year—Area 796.09 acres .....	2
Leases in force as at 31st March, 1943—Area 53,254.82 acres .....	186
20 Year Cultivation and Grazing Leases (Special Areas):	
Leases active as at 31st March, 1942 .....	.....
Leases issued during fiscal year—Area 14,101.73 acres .....	54
Leases cancelled during fiscal year .....	.....
Leases in force as at 31st March, 1943—Area 14,101.73 acres .....	54
Grazing permits issued .....	1,561
Cultivation permits issued .....	74
Hay permits issued—Tons of hay cut 7,014¾ .....	1,187
Hay seizures—5 covering 53 tons.	
Grazing—Long Term Grazing Leases:	
Leases active as at 31st March, 1942—Area 2,358,387.85 acres .....	1,645
Leases issued during fiscal year—Area 315,750.92 acres .....	197
Leases cancelled during fiscal year—Area 151,497.74 acres .....	115
Leases reinstated during fiscal year .....	.....
Leases transferred during fiscal year—Area 8,000.00 acres .....	4
Area added to existing leases .....	2,084.25 acres
Area withdrawn from existing leases .....	27,219.07 acres

On the 31st of March, 1943, there were in existence 1,731 long term leases, comprising an area of 2,505,506.21 acres.

Under the new provincial grazing reserve regulations, 8 reserves were established, two in the Edmonton and six in the Calgary districts.

Two of the reserves mentioned are operated by the Department and contain approximately 66,000 acres. 135 farmers obtained permits on these reserves and pastured 2,740 head of stock. Two other reserves containing approximately 9,420 acres are operated by incorporated associations as caretakers. On these reserves 55 farmers grazed 1,136 head of stock. The other four reserves were granted to incorporated associations in the form of leases from the Department, comprising an area of approximately 37,150 acres, on which 47 resident farmers pastured 1,250 head of stock and 1,862 sheep.

Proceedings are underway for the formation of five other reserves. One of these covers an extensive area and is to be operated by the Department in the Vauxhall district.

The total revenue received for the fiscal year in connection with the administration of provincial lands amounted to \$161,376.91, as compared with \$145,981.43 in the previous year, showing an increase of \$15,395.48. Details pertaining to this revenue are given in the report of the Accounting Division of this Department.

#### FILING DIVISION

	New Files made during fiscal year	Total Files March 31, 1943
General lands .....	3,282	96,169
Grazing lands .....	412	8,130
Timber lands .....	526	6,576
School lands .....	493	11,743
Mining lands .....	862	34,573
School lands, mining .....	6	3,164
Company files .....	20	945
<b>Totals .....</b>	<b>5,601</b>	<b>161,300</b>
Letters received during the fiscal year .....		142,665
Letters mailed during the fiscal year .....		207,055

A new system was introduced into the Filing Branch during the period under review, which covered a colour scheme for files, which has accelerated the sorting and searching for same.

A new file plot book system was also introduced which shows the rivers and lakes in each township, in addition to the file numbers, and is of great assistance in assigning and locating files for fractional areas.

Considerable additional work was involved in amalgamating Special Area files with those of Head Office.

#### SCHOOL LANDS

By Orders in Council Nos. 703/42 and 1174/42 the personnel of the Board to inquire into applications for compromise or adjustments in connection with outstanding school lands' sales, was amended by striking out the names of John William Patrick and David Nicol and substituting therefor the names of Edward Reginald Edwards, Acting Accountant, and Thomas Charles Rankine, Departmental Solicitor, respectively.

Seventeen Board meetings were held during the fiscal year and 205 cases were given consideration. By various Orders in Council passed during the year reductions were granted in 227 cases (22 cases carried over from the previous year) amounting to \$340,540.29 principal, and \$376,149.82 interest. This makes a grand total of 2,626 cases dealt with, resulting in total reductions of \$3,086,138.16 on principal account and \$2,622,274.09 on interest account.

There were two public auction sales of school lands. Seventeen new sales were made covering an area of 871.62 acres, at a total price of \$8,770.04.

Cancelled sales totalled 97, 48 by Order in Council and 49 by deed of surrender. Reinstated sales numbered 200. Approximately 1,869 active school

lands' sales were transacted during the year and 36 assignments in connection with same were registered.

Total revenue received on school lands' sales amounted to \$231,286.78—\$145,341.71, on principal and \$85,945.07 on interest—an increase of \$4,539.68 over last year. This increase is accounted for by the large number of sales reinstated. The total revenue received on school lands for the fiscal year was \$446,217.65.

The sum of \$214,930.87 was collected from rentals and royalties, as compared with \$269,184.03 in the previous year, a decrease of \$54,253.16. This decrease is due in most part to the wheat quota, which was only 14 bushels per acre at the end of March.

6 and 10 Year Cultivation and Grazing Leases:	
Leases active as at March 31st, 1942—Area 323,253.05 acres .....	1,752
Leases issued during fiscal year—Area 27,072.20 acres .....	142
Leases cancelled during fiscal year—Area 52,880.91 acres .....	302
Leases in force as at March 31st, 1943—Area 297,444.34 acres .....	1,592
6 Year Cultivation and Grazing Leases (Special Areas):	
Leases active as at March 31st, 1942 .....	.....
Leases issued during fiscal year—Area 10,347.13 acres .....	36
Leases cancelled during fiscal year .....	.....
Leases in force as at March 31st, 1943—Area 10,347.13 acres .....	36
Special Leases:	
Leases active as at March 31st, 1942 .....	41
Leases issued during fiscal year .....	5
Leases cancelled during fiscal year .....	2
Leases in force as at March 31st, 1943 .....	44
Licences of Occupation:	
Licences active as at March 31st, 1942 .....	33
Licences issued during fiscal year .....	3
Licences cancelled during fiscal year .....	.....
Licences in force as at March 31st, 1943 .....	36
Number of school lands assignments registered .....	88
Number of school lands grazing permits issued .....	2,123
Number of school lands cultivation permits issued .....	29
Number of school lands hay permits issued .....	253
Number of tons of hay cut .....	2,094¼
Number of hay seizures—1, consisting of 3 tons.	

## Forestry

### REPORT OF THE DIRECTOR OF FORESTRY, T. F. BLEFGEN

The year under review shows a falling off in the demand for forest products required for the erection of barracks, military encampments, hangars, internment camps and other buildings required by the army and air force.

The demand of the armed forces of the United States, however, has been greater than the year previous in connection with their requirements for hangars, administration and other buildings in connection with the Alaska Highway and the oil development at Fort Norman known as the Canol Project.

There was also a great deal of material required for the building of pre-fabricated huts which was transported to different sites where they were erected. Being of a portable nature they are readily moved from one site to another as the work progresses.

The demand for lumber to be used for crating implements of war, and for use as containers for munitions, parts of planes, tanks and for food supplies, especially meats and butter, has shown an increase.

The native spruce (*picea glauca*) of this province lends itself very well for all crating purposes in that it is a soft grain wood and does not split easily. Furthermore it is light, has the required tensile strength and, for packing meats and butter, it is in great demand owing to the fact that the odour of the wood is less liable to be imparted to the food shipped.

This feature of Alberta's native spruce has gained particular prominence during the present war and, as a result, the Dominion Timber Controller has granted the different box factories manufacturing food containers for overseas shipment a special priority, even over the requirements of the armed forces for encampments.

Railway traffic continued to be heavy during the year with the result that tie requirements for the railways reached an all time high. A great deal of coal was also required by the railway companies. Added to this, the extremely cold winter of 1942-43 rendered it necessary to mine a greater amount of coal for heating purposes than is usually required. As a result of these record mining activities, the demand for mine timbers such as props, tramway ties, lagging, etc., showed an increase.

Demands for products of the forest exceeded the output for the second time since the resources were taken over and in the fall of 1942 there was very little dry lumber available either in mills or retail yards. Even the box factory stocks were extremely low, in spite of the priorities they had been given for their requirements.

The reason was directly attributable to the shortage of labour referred to in the 1942 report of this Division. This condition, however, was greatly accentuated by labour requirements on the Alaska Highway, the Canol Project and numerous airports that were being constructed in the North, which were rushed to completion by the United States Government on cost plus basis contracts, with the result that wages were entirely out of line with those usually paid in logging and mill operations for the same class of work and most of the lumber camps were depleted of their better trained and more skilful operators. A great percentage of young boys, old men and a few others, who were unable to secure work from contractors working on the cost plus basis, were consequently the only ones remaining in some of the lumber camps and mills.

Owing to the extreme shortage of labour brought about by these conditions, some of the operators were forced to request, and were ultimately successful in obtaining permission to utilize, the services of German prisoners of war and Japanese nationals. These helped to a minor degree to alleviate the situation.

There were, however, a great many Special Timber Permits and small berths acquired, where neighbours worked together, co-operating to overcome the labour shortage and assist in meeting the war requirements for lumber, and at the same time benefitting by the higher prices being paid for forest products. In this manner the decrease in the cut of lumber from that of 1941-42 was not as great as was at first anticipated.

The extremely important part the forests of this province are playing, not only in the war effort but in the important question of tempering climate and assisting in the control of water tables throughout the prairies, is becoming better recognized by everyone. It is hoped that the importance of forest growth to a well-balanced nation will receive the credit it deserves, and that this will be reflected in more substantial appropriations when the war is over and victory is won.

It is with deep regret that the untimely death by accident of two of the personnel of the Crowsnest-Bow River Forest has to be recorded. Assistant Forest Ranger Bruce B. Broderick met his death in losing his foothold while climbing a mountain in company with Professor Webb of the University of Alberta. Ranger Henry J. Wileman lost his life in an endeavour to stop a runaway team. His daughter was on a load of hay being hauled to ranger headquarters and he endeavoured to stop the team and in doing so was knocked down, the wheels of the waggon passing over his chest causing his death a short time afterwards.

#### FOREST PROTECTION

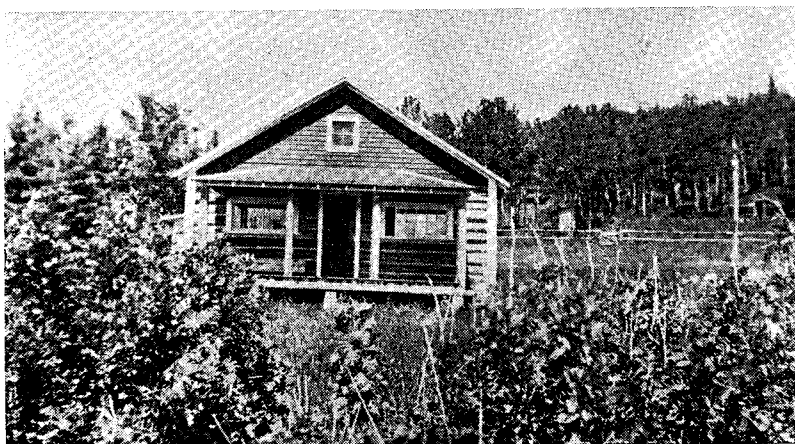
The fire hazard during the summer of 1942 was one of the most favourable to be experienced for a number of years. This was indeed fortunate as experienced labour was practically impossible to obtain. Those usually available had migrated to construction, war work and other highly paid projects, and a great number had enlisted, with the result that in some locations extra assistance was practically impossible to obtain. The promise of assistance, if required, was, however, offered by some of the Canadian army camps. Fortunately it was unnecessary to request this service, but the promised co-operation was much appreciated.

Very good co-operation was also received from the United States forces stationed in the Fort McMurray district. They gave the very best assistance possible with both men and mechanized equipment on several fires that occurred at a hazardous period which would otherwise have perhaps developed into large fires with heavy loss both in timber destroyed, coupled with time and expense in extinguishing.

A great number of aircraft flying in the northern part of the province was, perhaps, the cause of at least some of the fires fought in the outlying districts. Of nine fires that occurred in the Athabaska Valley, north and west of Whitecourt, seven were directly on the beam used between Edmonton and Fort St. John, British Columbia, and two of these were only a short distance on either side. Whilst being unable to definitely state that the fires referred to were caused by lighted cigars or cigarette butts being thrown from the planes, a thorough investigation into all other possible causes was made and the conclusion was therefore arrived at that these fires were caused in this manner. It is definitely known that a large percentage of lighted cigars or cigarette butts dropped from as high as 6,000 feet are capable of starting fires, and after the

usual causes such as lightning, camp fires, winter fire hangovers, etc., had been thoroughly investigated and eliminated it was concluded that flying personnel or passengers were the cause of at least seven of the nine fires referred to.

With reference to passengers on commercial planes, the question of throwing lighted material from airplanes is eliminated, as this matter has been taken up with the commercial companies flying to the north for years and found to be not the case. Warnings are placed in the planes and at stations, and receptacles are provided for smokers. The conclusion, therefore, is that the large number of army and airforce personnel travelling by plane on this route was responsible. The officers in charge of all flying operations have been requested, and have promised, to place warning signs, and to take all other necessary precautions to prevent forest fires being started from their planes. A further study of this cause of fire is being made and results will be closely watched.



Ranger Station House, Crowsnest-Bow River Forest

*Fire Season.*—During the winter of 1941-42 the weather was comparatively mild with less than an average snowfall throughout the forest areas of the province. In the Cypress Hills and Crowsnest-Bow River forests, as a matter of fact, the snowfall was so light that for the greater part of the winter sleighs were used with difficulty. The spring break-up was slightly earlier than usual, but there were several good snowfalls in the mountains and foothills in the early spring with the result that there was ample moisture in the forest areas.

The only spring fire hazard that was evident was in semi-open land and on hills with a southern exposure.

In the Westlock and Lac La Biche divisions of the Northern Alberta Forest District the season opened in April with a moderate hazard, owing to lack of precipitation. This was alleviated, however, by light falls of snow on the 6th and 7th of April and again on the 14th, and by a heavy rain on the 25th.

This preprecipitation was followed by warm weather and south-west winds and from the first week of May a hazard peak was reached which continued until May 25th when a general rain occurred. During this period a great deal of smoke was drifting from the north-west, reported to be coming from fires in Northern British Columbia and the Yukon Territory along the Alaska Highway and from a large fire in the vicinity of Anyox, British Columbia. This smoke, to a great extent, prevented the detection of fires by Alberta look-outs. Partly



as a result of this, and partly through the inexperience of one of the look-out men, the Two Hills fire burned for six days before being discovered and reported, allowing it to obtain a considerable size before suppression measures could be started. The loss of merchantable timber was not great, although a great deal of young coniferous growth was lost.

The summer season was very favourable to forest protection as ample rain fell during July and August. Although these rains were not general they occurred in practically all areas nearly every week, and in the southern part of the province the summer was one of the wettest that has been known for many years.

The early fall was quite wet with numerous showers and some snow in the mountain forests. The greatest hazard occurred in the Westlock division of the Northern Alberta Forest District, where fires appeared in most inaccessible places, presumably from cigarette butts or cigars dropped from airplanes.



Tourist and Fishermens' Shelter, Crowsnest-Bow River Forest

*Fire Prevention.*—The season under review was the most favourable for forest protection experienced for many years, a low hazard period existing in the forest areas with practically no lightning strikes in remote places. As a matter of record, all electrical storms were followed by rain and any lightning strikes were extinguished thereby.

A very favourable factor in the Northern Alberta Forest District was the ample moisture received during the fall of 1942, which came before freeze-up and not having a chance to run off was absorbed in the ground. This resulted in the soil containing sufficient moisture to prevent the usual winter camp fires from burning in the ground until conditions were favourable to spreading in the spring and summer.

Another helpful factor was the earlier assumption of duties by rangers who assisted greatly in checking incipient fires and in warning settlers before the early spring burning started.

A continuation of splendid co-operation from the press and different radio stations throughout the province was received, and I wish to take this opportunity of again thanking them and assuring them that such co-operation and assistance is greatly appreciated by the personnel of the Alberta Forest Service.



Junction of the Peace and des Rochers rivers



Ranger school group

*Fire Detection.*—Owing to the shortage of labour, the desired progress in providing adequate detection in the Northern Alberta Forest District is not being made. The study of suitable sites is continuing, however, with the object in view of having definite locations made so that proper coverage will be secured when these can be constructed.

*Fire Suppression.*—As previously stated, the season was one of the most favourable, from a suppression standpoint, that has been experienced for a number of years. Furthermore, our detection system was not hampered to the usual extent by smoke coming in from neighbouring provinces, with the exception of the short period previously referred to when a heavy smoke drifted from fires in British Columbia and Yukon Territory.

During the fire season of 1942, 215 fires were dealt with, 99 being in the large or "C" and "D" class, 66 in the "B" class and the remainder under ten acres in extent in the "A" class.

## COMPARISON OF FIRE LOSSES BY PERCENTAGE

Causes	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942
Campers .....	23.7	52.8	38.9	35.4	42.3	38.3	35.9	27.4	28.8	26.0	20.9	31.5
Smokers .....	3.2	5.3	13.5	11.7	9.3	9.7	4.5	3.6	5.0	4.8	2.2	3.3
Settlers .....	21.9	17.1	17.4	17.9	8.2	11.7	20.7	14.6	14.8	12.2	22.7	13.9
Railways .....	6.6	4.5	2.8	5.0	10.3	4.0	9.3	4.2	4.6	6.7	7.6	11.1
Lightning .....	.6	2.6	5.2	7.5	1.0	14.1	2.2	2.3	4.0	2.8	1.6	.9
Industrial operations .....	1.9	1.1	1.7	4.2	1.0	3.2	.8	1.4	1.4	.6	1.4	3.6
Incendiary .....	15.1	8.2	11.8	11.2	22.7	10.1	13.5	14.6	9.8	8.9	10.8	6.9
Public Works .....	1.4	.5	1.4	1.3	1.0	.4	.3	.8	.6	.....	.2	.5
Unclassified .....	1.5	1.6	.....	2.5	2.1	2.0	7.2	9.0	13.4	16.9	8.8	10.2
Unknown .....	24.1	6.3	7.3	3.3	2.1	6.5	5.6	22.1	17.6	21.1	23.8	18.1

## RAILWAY FIRE LOSSES, CALENDAR YEAR, 1942

This statement deals only with fires burning on forested territory under the supervision of the Alberta Forest Service, and which started within 300 feet of the centre line of the railway right of way.

## Causes and number of fires:

Railway causes—Locomotives .....	20
Employees .....	1
Sub-total .....	21
Other causes—Campers and travellers .....	1
Settlers .....	5
Unknown .....	12
Unclassified .....	9
Sub-total .....	27
TOTAL .....	48

## Number of acres burned:

Slashing or old burn .....	2
Timber land .....	.....
Young growth .....	1
Not forested .....	780
TOTAL .....	783

## Loss:

Timber .....	.....
Young growth .....	\$ 1.50
Forest products .....	.....
Other property .....	2.00
TOTAL .....	\$ 3.50

## DEPARTMENT OF LANDS AND MINES

ANNUAL STATEMENT OF FIRES BY CAUSES, MONTHLY DISTRIBUTION, ETC., WITHIN AND OUTSIDE FOREST RESERVES, ALBERTA—CALENDAR YEAR, 1942

Cause	Number					P.C.	Damage	Area, Acres	Monthly Distribution												Fires Inside Provincial Forests		Fires Outside Provincial Forests			
									January	February	March	April	May	June	July	August	September	October	November	December	No.	Area, Acres	No.	Area, Acres		
	A	B	C	D	Tot.																					
Camp-fires	13	19	19	16	67	31.5	\$ 69,793.63	94,197				9	26			8	9	6	9				2	15	65	94,182
Smokers	2	3	2		7	3.3	210.00	55					2			1	3	1					1		6	55
Settlers	5	11	10	4	30	13.9	29,772.00	21,114				2	9	13	2	2	2	2	2						30	21,114
Railways	12	9	2	1	24	11.1	55,412.75	28,877½				1	5	9	9	1	2		6	1				24	28,877¼	
Lightning	1				2	.9	18.75	200														1		1	200	
Industrial																										
Industrial operations	3	4	1	1	8	3.6		18½			2	2	2				1	1						8	18½	
Incendiary	1	2	5	7	15	6.9	3,824.75	36,197		1		2	1	1	1		6		4					15	36,197	
Public works					1	.5	143,762.50	1½																	1	1½
Unclassified	2	8	6	6	22	10.2	143,762.50	85,773			1	4	3	4		5	5	4	2					22	85,773	
Unknown	11	9	8	11	39	18.1	54,139.50	59,382½				1	7	17	3		5	1	5			2	3¾	37	59,378½	
TOTALS	50	66	54	45	215	100.0	\$ 356,933.88	325,815¾		1	5	34	69	20	10	34	13	28	1		6	18¾	209	325,797		
Per cent.	23.2	30.7	20.9	25.2		100.0				.5	2.3	15.8	32.1	9.3	4.6	15.8	6.0	13.1	.5		.3			.97		

ANNUAL SUMMARY OF FOREST FIRE LOSSES, ALBERTA—CALENDAR YEAR, 1942

FIRE CAUSES	NUMBER OF FIRES					LANDS AFFECTED							LOSS										SUPPRESSION COSTS			Burning Permits Issued
						Ownership		AREA	CONDITION				TIMBER (MERCHANTABLE AND CUT-OVER)					Loss of Timber	Loss of Young Growth	Loss of Other Property	Total Loss	Ranger Service	Other Expenditures	Total		
	Public, Acres	Private, Acres	Total, Acres	Merchantable Timber, Acres	Cut-over Timber, Acres	Young Growth, Acres	Not Forested, Acres		SALVABLE			UNSALVABLE														
								Saw-timber, M.ft.B.M.	Other, Cords	Depreciation	Saw-timber, M.ft.B.M.	Other, Cords	Loss													
														A	B	C	D	Total								

FIRES WITHIN FOREST RESERVES																												
Campers	1			1	2	15		15			3	12										\$ 9.75		\$ 9.75	\$ 58.29	\$ 59.34	\$ 117.63	
Smokers	1				1																							
Settlers																												
Railways																												
Lightning	1				1																							
Incendiary																												
Industrial operations																												
Unclassified																												
Unknown		2			2	2 1/4	1	3 3/4				3 3/4													1.80		1.80	
TOTALS	3	2	1		6	17 1/4	1	18 3/4			3	15 1/4									\$ 9.75		\$ 9.75	\$ 60.09	\$ 59.34	\$ 119.43		

FIRES OUTSIDE FOREST RESERVES																											
Campers	12	19	18	16	65	93,780 3/4	401 1/4	94,182	26,630	150	12,997 1/4	54,404 3/4	3,770	600		26,064	65,392	\$ 53,036.63	\$ 53,036.63	\$ 16,747.25		\$ 69,783.88	\$ 840.73	\$ 9,444.82	\$ 10,285.55		
Smokers	1	3	2		6	55		55	6		48	1		60				45.00	45.00	165.00		210.00	93.94	1,045.55	1,139.49		
Settlers	5	11	10	4	30	20,321	793	21,114	9,790	180	5,875	5,269	6,180			10	43,215	13,171.00	22,391.00	7,381.00		29,772.00	313.77	1,178.06	1,491.83		
Railways	12	9	2	1	24	28,865	12 1/4	28,877 1/4			18,850 1/2	10,026 3/4								55,412.75		55,412.75	43.51	423.23	466.74		
Lightning			1		1	200		200			15	185								18.75		18.75	41.25	124.65	165.90		
Incendiary	1	2	5	7	15	34,632	1,565	36,197	512		355	35,330		150		1,500	470	2,993.50	2,993.50	831.25		3,824.75	362.14	1,333.50	1,695.64		
Industrial operations	3	4	1		8	18 3/4		18 3/4		17 1/4		1 1/2											33.28	33.28			
Unclassified	2	8	6	6	22	83,163	2,610	85,773	15,939 1/2	1	24,895	44,937 1/2		9,505	118,116	56,978.75	56,978.75	86,283.75	\$ 500.00		143,762.50	979.55	16,789.94	17,769.49			
Unknown	11	7	8	11	37	41,774 1/2	17,604	59,378 1/2	10,850	640	15,853	32,035 1/2		1,167	20,740	7,014.50	7,014.50	44,715.00	2,410.00		54,139.50	416.24	6,420.47	6,836.71			
Public Works		1			1		3/4	1 1/2				1 1/2															
																		Miscellaneous Expenditure									
TOTALS	47	64	53	45	209	302,810 3/4	22,986 1/4	325,797	63,727 1/2	988 1/4	78,888 3/4	182,192 1/2	9,950	810	\$9,238.75	38,246	247,933	\$133,239.38	\$142,478.13	\$211,536.00	\$2,910.00	\$ 356,924.13	\$ 3,124.41	\$ 37,302.33	\$ 40,426.74		

FIRES WITHIN AND WITHOUT FOREST RESERVES																											
Campers	13	19	19	16	67	93,795 3/4	401 1/4	94,197	26,630	150	13,000 1/4	54,416 3/4	3,770	600		26,064	65,392	\$ 53,036.63	\$ 53,036.63	\$ 16,757.00		\$ 69,793.63	\$ 899.02	\$ 9,504.16	\$ 10,403.18		
Smokers	2	3	2		7	55		55	6		48	1		60				45.00	45.00	165.00		210.00	93.94	1,045.55	1,139.49		
Settlers	5	11	10	4	30	20,321	793	21,114	9,790	180	5,875	5,269	6,180			10	43,215	13,171.00	22,391.00	7,381.00		29,772.00	313.77	1,178.06	1,491.83		
Railways	12	9	2	1	24	28,865	12 1/4	28,877 1/4			18,850 1/2	10,026 3/4								55,412.75		55,412.75	43.51	423.23	466.74		
Lightning	1		1		2	200		200			15	185								18.75		18.75	41.25	124.65	165.90		
Incendiary	1	2	5	7	15	34,632	1,565	36,197	512		355	35,330		150		1,500	470	2,993.50	2,993.50	831.25		3,824.75	362.14	1,333.50	1,695.64		
Industrial operations	3	4	1		8	18 3/4		18 3/4		17 1/4		1 1/2											33.28	33.28			
Unclassified	2	8	6	6	22	83,163	2,610	85,773	15,939 1/2	1	24,895	44,937 1/2		9,505	118,116	56,978.75	56,978.75	86,283.75	\$ 500.00		143,762.50	979.55	16,789.94	17,769.49			
Unknown	11	7	8	11	39	41,777 1/4	17,605	59,382 1/2	10,850	640	15,853	32,039 1/4		1,167	20,740	7,014.50	7,014.50	44,715.00	2,410.00		54,139.50	418.04	6,420.47	6,838.51			
Public Works		1			1		3/4	1 1/2				1 1/2															
																		Miscellaneous Expenditure									
TOTALS	50	66	54	45	215	302,828 1/2	22,987 1/4	325,815 3/4	63,727 1/2	988 1/4	78,891 1/4	182,208 1/4	9,950	810	\$9,238.75	38,246	247,933	\$133,239.38	\$142,478.13	\$211,545.75	\$2,910.00	\$ 356,933.88	\$ 3,184.50	\$ 37,361.67	\$ 40,546.17		

SUMMARY BY DIVISIONS																											
N.A.F.D.*	44	61	53	45	203	302,807 1/2	22,986 1/4	325,793 3/4	63,725 1/2	988 1/4	78,888 3/4	182,191 3/4	9,950	810	\$9,238.75	38,246	247,913	\$133,229.63	\$142,468.38	\$211,534.50	\$2,910.00	\$ 356,912.88	\$ 3,100.46	\$ 36,703.67	\$ 39,804.13		
Clearwater	2	1	1		4	17		17	2		3	12					20	9.75	9.75			19.50	69.01	109.04	178.05		
Crowsnest-Bow	1				1																		6.31	6.85	13.16		
Brazeau-Athabaska	3	4			7	4	1	5			1/2	4 1/2								1.50		1.50	8.72	8.72	8.72		
Cypress Hills																											
																		Miscellaneous Expenditure									
TOTALS	50	66	54	45	215	302,828 1/2	22,987 1/4	325,815 3/4	63,727 1/2	988 1/4	78,891 1/4	182,208 1/4	9,950	810	\$9,238.75	38,246	247,933	\$133,239.38	\$142,478.13	\$211,545.75	\$2,910.00	\$ 356,933.88	\$ 3,184.50	\$ 37,361.67	\$ 40,546.17		

\*N.A.F.D.—Northern Alberta Forest District



SUMMARY SHOWING TOTAL NUMBER OF FIRES AND BURNT OVER AREA  
FROM 1931 TO 1942, INCLUSIVE

Year	Total No. of Fires	Total Acreage	Not Forested	Net Acreage
1931 .....	622	604,876.12	209,064.75	395,811.37
1932 .....	379	136,117.89	68,253.42	67,864.47
1933 .....	288	93,765	30,955.88	62,809.12
1934 .....	240	58,870	21,656.5	37,213.5
1935 .....	97	6,319.75	3,267.75	3,052
1936 .....	248	204,454	46,534	157,920
1937 .....	375	835,259	155,069.5	680,189.5
1938 .....	521	1,758,345.5	842,384	915,961.5
1939 .....	499	429,139.25	159,774.5	269,364.75
1940 .....	313	474,244.25	108,597.5	365,646.75
1941 .....	445	1,355,424.5	459,475	895,949.5
1942 .....	215	325,817.75	182,208.25	143,607.50
	4,242	6,282,631.01	2,287,241.05	3,995,389.96

### RADIO

In advance of the fire season of 1942 all radio equipment had been checked and repaired in readiness for the fire season. Owing to favourable conditions, however, all of the equipment was not put into operation as early as in previous years, the last set being placed in operation on May 3rd.

During the spring and summer under review high power transmitters were installed at Calgary and at Rocky Mountain House improving the service to the southern part of the province, and in the north a high power transmitter was installed at Lac La Biche headquarters. These transmitters have three crystal controlled channels and may be operated either on code by key or by voice.

Medium power units were installed at Peace River headquarters and at the Saskatoon Mountain look-out west of Grande Prairie. These medium-power units operate from either battery supply or alternating current. Additional portable equipment was purchased and distributed, bringing the total of this class of equipment to 66 sets in use throughout the province.

Additional work and strain was placed on communication facilities when advice was received that operating frequency in the northern zone would have to be changed to avoid confliction and interference with the frequency being used by the United States Army Signal Corps on the Alaska Highway.

By staggering the work so as to continue operation, 45 sets were changed without seriously impairing communication facilities.

All look-out and headquarters stations stood by from 8 to 12 hours each day, depending upon the existing fire hazard. By means of this service the rangers' operating portable sets and the timber inspectors' operating mobile sets are able to contact the look-out or headquarters station in their zone frequency with a minimum of delay.

Due to the preference the armed forces have over all other services in the matter of obtaining priorities, the same difficulty mentioned last year was encountered in securing necessary replacements and new equipment for radios.

The difficulty of obtaining trained personnel is a problem which also continues to be encountered in radio communication.

### FOREST ADMINISTRATION

*Provincial Forest Reserves.*—Timber disposal from the forest reserves continued to be heavy. Shortage of labour and lack of snow, however, proved to be quite an impediment. The issuance of permits for miscellaneous uses continued with practically the same volume as that of previous years.

The many demands for mine timber of all classes were carried on from the preceding year, with the result that the few remaining areas of dry timber,

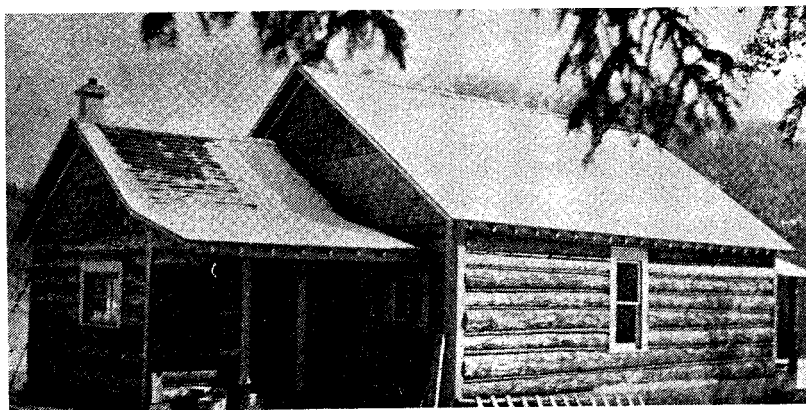
which only a few years ago were considered to be too far distant from the mines, are now in great demand. At the present rate of coal consumption, and the timber requirements resulting therefrom, it is estimated that available supplies of dry timber in the Crowsnest area of the Crowsnest-Bow River Forest will be depleted within four or five years.

## TIMBER CUT UNDER PERMIT, ALBERTA FOREST RESERVES, FISCAL YEAR, 1942-43

	Cypress Hills	Crowsnest- Bow River	Clearwater	Brazeau- Athabaska	Totals
Number of permits .....	211	233	31	42	517
Fuelwood, cords .....	407	1,069	1,263	52	2,791
Mine timber, lineal feet .....		456,350	95,000	221,534	772,884
Lagging, lineal feet .....		151,700			151,700
Fence posts .....	17,195	5,391	181		22,767
Saw logs (F.B.M.) .....	2,943	4,651,280	20,000	16,000	4,690,223
Round timber, pieces .....			237	200	437
Round timber, lineal feet .....			2,320		2,320
Fence rails, pieces .....	19,138	7,866			27,004
Railway ties .....				1,380	1,380
Tramway ties, number .....				500	500
Building logs, lineal feet .....	99	8,831			8,930
Piling, lineal feet .....		728			728
Roof poles .....		50			50

## TIMBER OPERATIONS ON FOREST RESERVES—TIMBER SALES—FISCAL YEAR, 1942-43

	Crowsnest- Bow River	Clearwater	Brazeau- Athabaska	Totals
Number of active operations .....	25	6	20	51
Lumber, feet board measure .....	8,550,082	2,020,697½	7,972,264	18,543,043½
Railway ties .....		29,423	102,865	132,288
Piling, lineal feet .....	80			80
Mine timber, lineal feet .....	869,868	680,304	809,683	2,359,855
Lagging, lineal feet .....	301,084	10,175	1,988	313,247
Building logs and culvert timber .....			656	656
Fence posts .....	2,056			2,056
Fuelwood, cords .....	172			172
Mine ties, number .....			1,880	1,880
Tramway ties, number .....			7,048	7,048
Poles .....	777			777
Fence rails .....	8,933			8,933
Shingle bolts, cords .....	6			6
Slabs, cords .....	50		150	200



Sentinel Ranger Station, Crowsnest-Bow River Forest





Nordegg Ranger Station, Clearwater Forest

*Provincial Lands.*—The demand for products of the forest continued at a very heavy rate and, had sufficient labour been available, the all time high peak for production last year would have been surpassed. With the double handicap of a labour shortage, however, coupled with the inefficiency of a great number of those available, the cut of timber was approximately 16% less than that taken out during the previous year.

The number of railway ties manufactured, however, was greater than for any previous year, a total of 1,797,703 being cleared to the railways, compared with the previous high mark of 1,321,685 reached in 1940-41.

In passing it might be mentioned that previous to the fall of 1942 the different railway companies would not accept spruce ties owing to their relatively short life under operating conditions, as compared with pine and other species, but the shortage of labour and difficulty in securing their requirements of pine ties necessitated a change in policy, and both the Canadian National Railways and the Northern Alberta Railways Company contracted for and accepted a certain percentage of ties manufactured from spruce timber. The Canadian National Railways plan to creosote the spruce ties they have secured before being placed in the track, and if they stand up to their requirements they will accept greater percentages of this species in future contracts.

Although the lumber output was down from the 1941 figure, there were a great many more Berths and Special Timber Permits granted to cut timber. This added activity considerably increased the volume of work for both the field and office staffs.

These smaller operators prevented, to a great extent, the expected decrease in volume as estimated by some of the larger operators, who had based their figures on their own operations and had estimated a reduction of from 40% to 60% from the amount taken out the previous year.

STATEMENT OF TIMBER OPERATIONS FOR 1942-43 ON PROVINCIAL LANDS  
IN THE EDMONTON DISTRICT AND IN THE CALGARY AND PEACE RIVER LAND AGENCIES

(a) OPERATIONS ON LICENCE TIMBER BERTHS:

	Head Office Edmonton District	Calgary Agency	Peace River Agency	Totals
Number of active operations	54	9		63
Lumber, feet, board measure	89,578,479	7,347,772		96,926,251
Railway ties	159,913			159,913
Mine timber, lineal feet		3,214,481		3,214,481
Slabs, cords		202		202
Lath				3,308,100
Building logs, lineal feet	3,308,100			7,732
Fence posts	7,732			1,400
Fuelwood, cords		1,400		106
Lagging		244,427		244,427
Snow fence lath	307,920			307,920

(b) OPERATIONS ON TIMBER PERMIT BERTHS:

	Head Office Edmonton District	Calgary Agency	Peace River Agency	Totals
Number of active operations	215	32		247
Lumber, feet, board measure	63,634,064	10,588,728		74,222,792
Railway ties	697,339	69,469		766,808
Piling, lineal feet		3,020		3,020
Mine timber, lineal feet		212		212
Lath	457,700	599,050		1,056,750
Lagging, lineal feet	2,200	174,100		176,300
Telegraph and telephone poles, lineal feet	4,624			4,624
Building logs and culvert timber, lineal feet	34,672			34,672
Fuelwood, cords		212		212
Fence posts	119			119
Slabs, cords	15			15

(c) OPERATIONS UNDER SPECIAL TIMBER PERMITS:

(Sec. 68 of the Timber Regulations)				
	Head Office Edmonton District	Calgary Agency	Peace River Agency	Totals
Number of active operations	376	66		442
Lumber, feet, board measure	17,141,232	2,034,568		19,175,800
Railway ties	415,577	56,553		472,130
Piling, lineal feet	22,500			22,500
Mine timber, lineal feet	27,200			27,200
Telegraph and telephone poles, lineal feet	10,931			10,931
Building logs and culvert timber, lineal feet	4,586			4,586
Fence posts	9,390	1,800		11,190
Fuelwood, cords	1,159 1/2			1,159 1/2
Shingles	313,500			313,500
Lath	74,428	900,900		975,328
Birch veneer, lbs.	4,349,928			4,349,928
Slabs, cords	1,200			1,200
Shingle bolts, cords	23 1/2			23 1/2

\*(d) PROVINCIAL LANDS TIMBER PERMITS ISSUED AUTHORIZING THE CUTTING OF MATERIAL SHOWN HEREUNDER:

Number of permits issued .....	953	158	611	1,722
Building logs, lineal feet .....	29,082	13,433	117,684	160,199
Mine timber, lineal feet .....	570,765	1,432,000	.....	1,952,765
Telephone poles .....	14,320	68	.....	14,388
Piling, lineal feet .....	11,740	.....	34,880	46,678
Lumber, feet, board measure .....	3,213,529	99,632	2,829,161	6,142,322
Fence posts .....	46,963	18,700	34,825	100,488
Droppers (fence) .....	.....	5,500	.....	5,500
Roof poles .....	8,800	400	28,880	38,080
Fence rails .....	44,570	4,250	138,440	187,260
Fuelwood, cords .....	8,017	2,048	2,987	13,052
Railway ties .....	5,051	.....	10,325	15,376
Shingles .....	124,000	25,000	151,000	300,000
Shingle bolts, cords .....	49	.....	136	185
Radio poles, number .....	4	.....	.....	4
Slabs, cords .....	.....	35	.....	35
Mine ties, lineal feet .....	.....	16,000	.....	16,000

\*The figures shown under this heading are the amounts authorized to be cut. The amounts actually cut under this heading are not available.

STATEMENT OF TIMBER OPERATIONS FOR 1942-43 ON SCHOOL LANDS  
IN THE EDMONTON DISTRICT AND IN THE CALGARY AND PEACE RIVER LAND AGENCIES

(a) OPERATIONS ON TIMBER PERMIT BERTHS:

	Head Office Edmonton District	Calgary Agency	Peace River Agency	Totals
Number of active operations .....	14	4	.....	18
Lumber, feet board measure .....	4,669,429	1,813,762	.....	6,483,191
Railway ties .....	38,188	.....	.....	38,188
Lath .....	208,750	.....	.....	208,750
Slabs, cords .....	269	.....	.....	269

(b) OPERATIONS UNDER SPECIAL TIMBER PERMITS:

	25 (Section 25(g) of the Timber Regulations)	12	.....	37
Number of active operations .....	1,395,608	572,829	.....	1,968,437
Lumber, feet board measure .....	211,420	.....	.....	211,420
Railway ties .....	.....	.....	.....	.....

\*(c) SCHOOL LANDS TIMBER PERMITS ISSUED AUTHORIZING THE  
CUTTING OF MATERIAL SHOWN HEREUNDER:

Number of permits issued .....	299	31	37	367
Building logs, lineal feet .....	1,500	100	4,160	5,760
Mine timber, lineal feet .....	68,050	130,000	.....	198,050
Piling, lineal feet .....	.....	800	.....	800
Lumber, feet board measure .....	313,366	48,000	190,000	551,366
Fence posts .....	3,150	640	2,000	7,790
Fence rails .....	1,583	850	120	2,353
Fuelwood, cords .....	2,193	201	73	2,467
Shingles .....	.....	.....	5,000	5,000
Shingle bolts, cords .....	15 3/4	.....	.....	15 3/4
Railway ties .....	200	.....	.....	200

\*The figures shown under this heading are the amounts authorized to be cut. The amounts actually cut under this heading are not available.

## SUMMARY OF TIMBER OPERATIONS ON PROVINCIAL AND SCHOOL LANDS, 1942-43

	PROVINCIAL LANDS				SCHOOL LANDS				FOREST RESERVES			
	Licence Timber Berths	Permit Timber Berths	Special Section 68	Other Permits	Permit Timber Berths	Special Section 25 (g)	Other Permits	Timber Sales	Timber Permits	Totals		
Number of active operations .....	63	247	442	1,722	18	37	367	51	517	3,464		
Lumber, feet, board measure .....	96,926,251	74,222,792	19,175,800	6,142,322	6,483,191	1,968,437	551,366	18,543,043 1/2	4,690,223	228,703,425 1/2		
Railway ties .....	159,913	766,808	472,130	15,376	38,188	211,420	200	132,288	1,580	1,797,703		
Piling, lineal feet .....		3,020	22,300	46,678			800	80	728	73,806		
Mine timber, lineal feet .....	3,458,908	176,512	27,200	1,932,765			198,050	2,673,102	924,584	9,411,121		
Telegraph and telephone poles, lineal feet .....		4,624	10,931	14,388						29,943		
Building logs and culvert timber, lineal feet .....		34,672	4,586	160,199						225,935		
Fence rails .....	7,732			187,260				8,930		27,004		
Fence posts .....				100,488				8,933		22,767		
Fence droppers .....	1,400	119	11,190	5,500				2,056		5,500		
Roof poles .....				38,080				777	50	38,907		
Fuelwood, cords .....	106	212	1,159 1/2	13,052			2,467	172	2,791	19,959 1/2		
Slabs, cords .....	202	15	1,200	13,555	269			200		1,921		
Mine ties, lineal feet .....				16,000				1,880		17,880		
Shingles .....			313,500	300,000			5,000			618,500		
Shingle bolts, cords .....			23 1/2	185			15 3/4			230 1/4		
Lath, snow fence .....	3,308,100	1,056,750	975,328		208,750					5,548,928		
Tramway ties .....	307,920									307,920		
Round timber, pieces .....								7,048	500	7,548		
Birch veneer, lbs. .....									582	582		
Radio poles, number .....			4,349,928							4,349,928		
Number of inspection reports submitted by timber inspectors .....				4						4		
Number of timber seizures made .....										2,601		
										158		

## GRAZING

Owing to the lack of normal precipitation in the form of snow during the previous winter the growth of grass was slow during the early spring. This condition, however, was alleviated after the rains became general in May. The ample rains during the late summer and fall kept the range green to the end of the grazing season.

Most stock entered the grazing divisions in good shape. There were a few herds, however, that were quite thin on the southern part of the Crowsnest-Bow River Forest when they entered the summer grazing areas. All stock was reported to have left the ranges in the fall of the year in remarkably good condition.

Most ranges came through the season in excellent shape. There were two cases, however, where over-grazing was reported. These were on the South Drywood Sheep Range and on the northerly part of the south end, cattle and horse division. This condition certainly cannot be justified, especially during a season such as that under review, where the forage was ample and the ranges not over-stocked. The cause, however, is the usual one in such cases, that is improper distribution and poor handling of stock.

In an endeavour to prevent a recurrence of these conditions, the matter was taken up with the various stock associations at their annual meetings with the promise of closer supervision of their ranges being secured. This will have to be checked closely to see that these promises are carried out.

The market for cattle continued to be good. As a matter of fact, an increase in price over that obtained the previous season was reported by most stockmen. The market for horses was considered fair with a slight falling off in some cases as compared with previous years.

## GRAZING STATEMENT—ALBERTA FOREST SERVICE, 1942-43

Forest	No. of Permits	No. of Horses	No. of Cattle	No. of Sheep
Cypress Hills .....	62	592	2,526	.....
Crowsnest-Bow River .....	292	1,857	19,992	4,716
Clearwater .....	47	756	227	.....
Brazeau-Athabaska .....	106	526	112	6
<b>TOTALS</b> .....	<b>507</b>	<b>3,731</b>	<b>22,857</b>	<b>4,722</b>

## COMPARATIVE STATEMENT, GRAZING—ALBERTA FOREST SERVICE

Grazing year	1931	1932	1933	1934	1935	1936	1937
Number of permits .....	456	606	493	517	533	497	529
Number of cattle .....	15,041	20,086	20,230	22,557	25,097	23,407	18,921
Number of horses .....	3,417	3,377	3,185	2,541	2,207	2,441	3,418
Number of sheep .....	4,379	7,465	6,705	3,078	4,114	5,443	3,174
	1938	1939	1940	1941	1942	Totals	Average
Number of permits .....	437	482	435	479	507	5,971	497.5
Number of cattle .....	22,280	22,386	23,831	22,451	22,857	259,144	21,595.4
Number of horses .....	3,024	2,731	3,194	3,332	3,731	36,598	3,049.8
Number of sheep .....	4,791	6,883	3,954	4,745	4,722	59,453	4,954.4

## IMPROVEMENTS

As a result of the exceptionally favourable fire season, the different staffs were able to devote a maximum of time on improvement projects. This, however, was principally devoted to maintenance work.

In addition to the maintenance of roads, trails, bridges, telephone lines and buildings, several new projects were started. Some were completed, while on others considerable progress was made. The principal construction carried out was the completion of the look-out tower on Saskatoon Mountain in the Grande Prairie Division of the Northern Alberta Forest District. This tower was put into operation as a radio equipped station in July and was found to assist materially in fire detection.

A new forestry station and cache were built in Grande Prairie. These buildings are a decided improvement on those previously in use.

In the Peace River Division in the Northern Alberta Forest District a tower was erected on what is known as Pack Saddle Mountain. The erection of this tower is quite satisfactory, but does not give the coverage desired. It takes in part of the country and will be of some use, but cannot be considered a location that would warrant a permanent radio equipped tower.

On the Crowsnest Forest Reserve no new construction work was undertaken during the season under review, but on the Bow River Forest work was carried out on nine new construction projects, seven of which were completed, while on the other three considerable work was done but the projects were not complete at the end of the season.

The principal construction work was done on the Aura Ranger Station house. This work was started last year when logs were cut and hauled for the construction of the building and this year the basement was dug, a cement foundation put in, log walls erected and the roof sheeted and partly shingled. The project, however, was not completed.

On the Clearwater forest work was done on four cabins, but, owing to the great amount of maintenance work on other projects, these were not completed.

On the Brazeau Forest three new buildings were completed, they being the Leyland and Yellowhead caches and woodshed at the Mountain Park Ranger Station.

On the Athabaska Forest work was started on several cabins, but, owing to the identical conditions referred to in the Clearwater Forest, these were not completed.

NEW CONSTRUCTION PROJECTS:																		IMPROVEMENT STATEMENT																	
Forest		Houses	Garages, Sheds, etc.	Fences	Fields (breaking in acres)	Water Supply Systems	Barns and Stables	Telephones (miles)	Corrals	Bridges	Grounds	Trails (Miles)	Cabins	Fireguard Roads (Miles)	Tourist Stoves	Radio Portables	Miscellaneous																		
Cypress Hills																																			
Crowsnest		1	3			1						2	2	1		4	1																		
Bow River		1	6	1				4	1			2	2	1		3	1																		
Clearwater									3				3	1			6																		
Brazeau													9	1			3																		
Athabaska			3	2						1				2			3																		
TOTALS		1	13	3		1	1	4	4	1	4	13	8			7	11																		

MAINTENANCE PROJECTS:																	
Forest		Houses	Cabins	Barns and Stables	Telephones (Miles)	Trails (Miles)	Roads (Miles)	Fences	Corrals	Water Supply Systems	Garages, Sheds, etc.	Look-out Towers and Cabins	Grounds	Hay Meadows & Pastures	Ferries	Bridges	Miscellaneous
Cypress Hills		1	1	1	12.5	56	1	1	1	1	1	1	1	1			
Crowsnest		9	1	5	161	272	145	15	3	2	10	14	9	4		1	2
Bow River		5	10	8	241.5	550	100.5	18	6	6	6	14	14	5			2
Clearwater		4	14	3	201.5	700.5	59	13				4	1	2	1		2
Brazeau		4	7	2	194.5	284.5	9.5	8	1			8	1	1			1
Athabaska		2	9		76.0	401.5	85.5	6	1	2	4	2	1				3
TOTALS		25	42	19	887.0	2208.5	455.5	61	12	11	41	3	31	11	1	1	12



IMPROVEMENTS—STATEMENT OF MAN-DAYS WORKED

NEW CONSTRUCTION PROJECTS:

Forest	Houses	Garages, Sheds, etc.	Fences	Look-out Towers	Water Supply System	Barns and Stables	Telephones	Corrals	Bridges	Grounds	Trails	Cabins	Tourist Stoves	Fireguard Roads	Radio Portables	Miscel- laneous
Cypress Hills	...	12 1/2	...	...	4 1/2	...	...	...	...	4	3	1/2	...	...	10	...
Crowsnest	...	32 1/2	...	...	...	...	...	3 1/2	...	14 1/2	8	36	...	...	18	12
Bow River	...	36 1/2	2 1/2	...	...	...	90	23	...	...	31	47	...	...	...	65 1/2
Clearwater	...	...	...	...	...	...	...	...	...	...	...	45	...	...	...	53
Brazeau	...	80 1/2	14	...	...	221 1/2	...	...	179 1/2	...	...	109 1/2	...	...	...	...
Athabaska	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	123 1/2	163	16 1/2	...	4 1/2	221 1/2	90	26 1/2	179 1/2	18 1/2	42	238	...	...	28	130 1/2

MAINTENANCE PROJECTS:

Forest	Houses	Cabins	Barns and Stables	Telephones	Trails	Roads	Fences	Corrals	Water Supply Systems	Sheds, Garages, Etc.	Look-out Towers and Cabins	Grounds	Hay Meadows & Pastures	Ferries	Bridges	Miscel- laneous
Cypress Hills	31 1/2	7 1/2	21 1/2	28	...	23 1/2	2 1/2	13 1/2	2	3	...	8	...	...	...	31 1/2
Crowsnest	91 1/2	2 1/2	24	208 1/2	84	358	200	5 1/2	3	23 1/2	...	114 1/2	5 1/2	...	143	8
Bow River	33	38	41	292	332 1/2	368 1/2	344	56	38 1/2	30 1/2	...	128	13	...	...	8
Clearwater	7	14 1/2	12	285 1/2	432	90	176	...	...	2	...	19 1/2	1	11	...	3 1/2
Brazeau	79 1/2	29	24 1/2	158 1/2	198	4	29 1/2	1 1/2	...	25 1/2	12	5	...	...	...	2
Athabaska	31 1/2	18 1/2	...	35 1/2	128 1/2	163 1/2	59	1	4	13	...	...	...	...	...	37
TOTALS	274	110	123	1,008	1,175	1,007 1/2	811	77 1/2	47 1/2	97 1/2	12	274	19 1/2	11	143	90

## PUBLICITY

The press and different radio stations throughout the province have given splendid co-operation by inserting news items and making announcements over the air regarding fire hazards. A great deal of favourable comment was heard on the programmes sponsored by the Dominion Forest Service and transmitted over the Canadian Broadcasting Corporation network. Although the radio reaches a great many, it is, in the opinion of a number of the field men, a form of publicity which should be augmented, and that better results could be obtained by the distribution of pamphlets, literature and movie trailers depicting the devastation that occurs when a camp fire is not extinguished.

## NURSERY AND TREE DISTRIBUTION

Progress continues to be made in tree nursery work at the Oliver Mental Institute and at the Fort Saskatchewan gaol. It is, however, regrettable that the same success is not being met with at the Lethbridge gaol nursery. The principal reason for lack of satisfactory results at this location is that it is in a dry area where irrigation is necessary, and it has been found that the continual use of water has a tendency to bring alkali to the surface, which is very detrimental to tree growth. A further study is being made in an endeavour to overcome this unfavourable condition. If no remedy is found, however, it will perhaps become necessary to abandon the location and select a more suitable site.

*Tree Distribution.*—The following species and quantities were given out from Oliver in the spring of 1943:—

<i>Transplants:</i>		
White Spruce ( <i>Picea glauca</i> ) .....	34,802	
Lodgepole Pine ( <i>Pinus murrayana</i> ) .....	8,865	
Red Pine ( <i>Pinus resinosa</i> ) .....	6,135	
Green Ash ( <i>Fraxinus pennsylvanica</i> ) .....	12,215	
Bur Oak ( <i>Quercus macrocarpa</i> ) .....	13,802	
Douglas Fir ( <i>Pseudotsuga mucronata</i> ) .....	10,783	
Siberian Larch ( <i>Larix sibirica</i> ) .....	2,510	
White Oak ( <i>Quercus alba</i> ) .....	1,770	
Red Oak ( <i>Quercus rubra</i> ) .....	2,065	
American Elm ( <i>Ulmus americana</i> ) .....	995	
Colorado Blue Spruce ( <i>Picea pungens</i> ) .....	212	
		94,154
<i>Cuttings:</i>		
Laurel Leaf Willow ( <i>Salix pentandra</i> ) .....	15,855	
Golden Willow ( <i>Salix vitellina</i> ) .....	14,135	
North-west Poplar ( <i>Populus</i> ) .....	8,690	
		38,680
<i>Seedlings:</i>		
Colorado Blue Spruce ( <i>Picea pungens</i> ) .....	200	
		200
<i>Ornamental Species:</i>		
Flowering Almond ( <i>Prunus triloba</i> ) .....	2	
Ginnalian Maple ( <i>Acer ginnala</i> ) .....	4	
Honeysuckle ( <i>Lonicera ciliosa</i> ) .....	52	
Red Elderberry .....	15	
Regosa Rose Bushes .....	20	
Weeping Birch .....	46	
Mountain Ash ( <i>Pyrus americana</i> ) .....	6	
Plum ( <i>Prunus nigra</i> ) .....	8	
Hawthorne ( <i>Crataegus</i> ) .....	2	
Horse Chestnut ( <i>Hippocastanum</i> ) .....	2	
Spirea .....	15	
Basswood ( <i>Tilia americana</i> ) .....	2	
Syringa .....	28	
		202
		<u>133,236</u>

## MILEAGE TRAVELLED BY EMPLOYEES OF THE ALBERTA FOREST SERVICE

FISCAL YEAR 1942-43

Divisions	Foot	Saddle	Driving	Speeder	Auto	Canoe	Rowboat	Motorboat	Plane	Railway	Other	Totals
Northern Alberta Forest District .....	28,267 $\frac{3}{4}$	44,140 $\frac{1}{2}$	28,338	13,538	142,897 $\frac{3}{4}$	463	364	6,930 $\frac{1}{2}$	1,881	10,248	3,036	280,104 $\frac{1}{2}$
Crowsnest-Bow River Forest .....	3,163	26,333	2,757	.....	52,559	.....	.....	85	.....	532	.....	85,429
Clearwater Forest .....	7,184	13,317	2,497	895	28,817	.....	.....	.....	.....	1,013	64	53,787
Brazeau-Athabaska Forest .....	7,953	16,000	1,878	4,703	19,524	21	.....	.....	.....	4,274	.....	54,353
Cypress Hills Forest .....	218	718	189	.....	5,853	.....	.....	.....	1,500	8,384	190	6,978
Radio Division .....	167	737	170	.....	10,120	.....	.....	.....	.....	.....	.....	21,268
<b>TOTALS</b> .....	46,952 $\frac{3}{4}$	101,245 $\frac{1}{2}$	35,829	19,136	259,770 $\frac{3}{4}$	484	364	7,015 $\frac{1}{2}$	3,381	24,451	3,290	501,919 $\frac{1}{2}$

## Fisheries and Game Administration

REPORT OF THE FISH AND GAME COMMISSIONER,  
E. S. HUESTIS

### FISHERIES BRANCH

During the fiscal year under review conditions showed an improvement in commercial fishing, reflecting gains both to fishermen, exporters and the companies operating. Total production of commercial fish amounted to 6,158,883 pounds, an increase of 238,784 pounds over the previous year. A steady demand on the export and home markets was maintained throughout the year, resulting in a gain of \$170,831.34 in the value of fish marketed.

Sport fishing was handicapped during the greater part of the season due to unseasonable wet weather, high water, cloudy streams and muddy roads. Excellent angling was had in some sections of the foothills, but conditions generally could only be considered as fair. In order to afford sportsmen an added opportunity to exercise their skill, the angling season on the Bow River and Athabaska River watersheds was extended to October 31, 1942, and fine weather and good water during the 16 days' extension in some measure compensated for the earlier uncertain weather and road conditions.

Coarse fish angling in lake waters showed an increase both in the numbers of anglers as well as in the amount of fish taken. This was due partly to all-weather roads within easy reach of many good lakes and the tendency of the public to spend summer vacations nearer at home in consequence of war-time gasoline restrictions.

An innovation, in the form of an angling permit good for three consecutive days, was introduced for the purpose of attracting anglers with only limited leisure time who, otherwise, would not be encouraged to purchase a season's permit.

The condition of the fisheries throughout the province both commercially and from the sporting point of view was satisfactory.

Mr. James Cross of the Calgary Brewing and Malting Company, in an endeavour to assist in the propagation of fish throughout Alberta, constructed in 1941 on his Company's property one of the most up-to-date hatcheries on the North American Continent. This hatchery, in its initial stage, had a capacity of approximately two million fish per year. The water used for its operation comes from a large well within the brewery building, the product of which is absolutely pure. This water represents the sole source of supply for the brewery's operations, the surplus becoming available for hatchery work.

In addition to this contribution to the public life of the province, Mr. Cross and his Company have added a number of very beautiful fish ponds on their grounds in which a variety of fish of various sizes and species are kept. These ponds are surrounded by a profusion of exotic flowers, shrubs and trees, and are reached by crossing a beautiful lawn where the paths laid down are paved with the prehistoric rock, which for countless millions of years have preserved the dinosaur remains along the Red Deer River in Alberta. Most of the ponds are constructed from the same type of rock. This display gives to the general public, whose privilege it is to visit the grounds, an opportunity to become

familiar with the various species of game fish which are being reared by the Department.

In 1943, Mr. Cross felt that with the addition of rearing ponds throughout the province, the hatchery could be extended in size. A new room was therefore constructed and a complete installation of troughs set up, which has completely doubled capacity, giving the province the use of the largest single game fish hatchery in the Dominion of Canada, with a present annual capacity of four million fish.

Eggs are brought to the fry stage, and from there the fish are distributed to rearing ponds throughout the province, where in turn they are kept to almost limit size and distributed in Alberta's streams and rivers for the general benefit of anglers in the province.

*Fish Culture.*—This important part of the Division's work was carried out very effectively by the various officers directly responsible. The season's operations of the whitefish hatchery at Lesser Slave Lake were satisfactory and a total of 72,850,000 whitefish eggs were distributed in the following waters:—

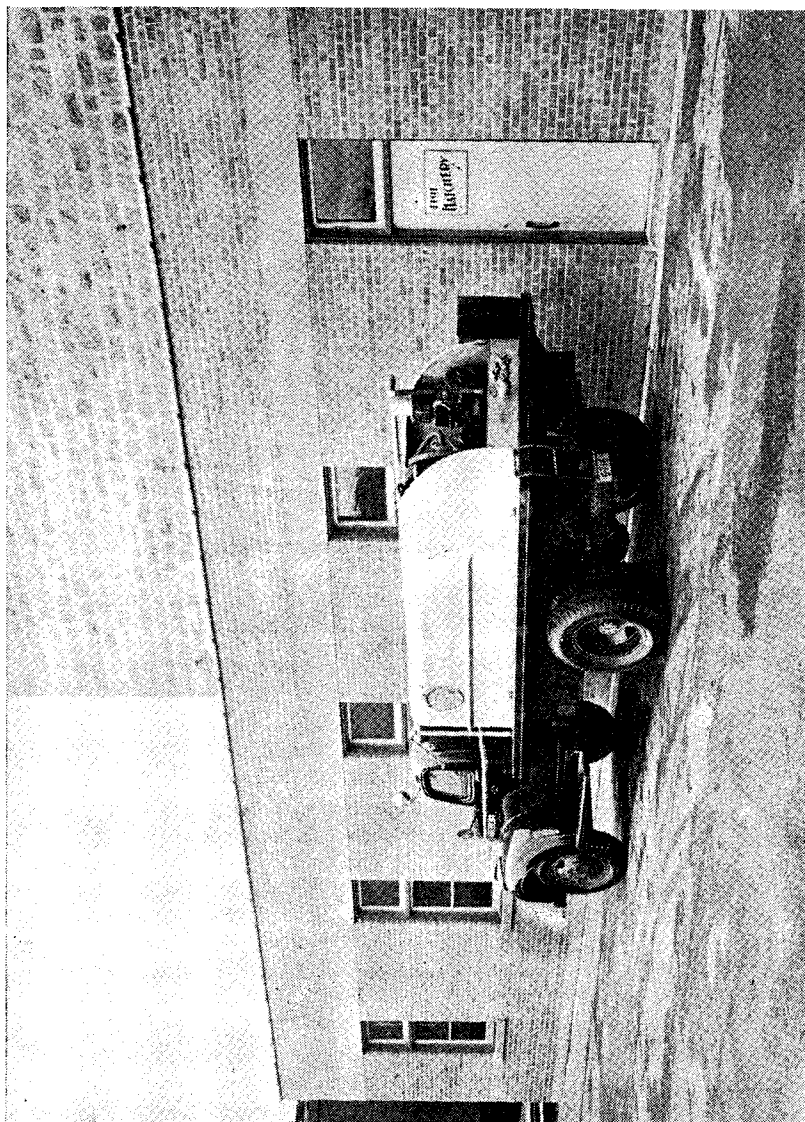
	Eyed Eggs	Fertilized Eggs
Beaver Lake .....	2,000,000	.....
Buck Lake (Tp. 46-6-5) .....	4,000,000	.....
Buck Lake (Tp. 65-17-4) .....	2,000,000	.....
Battle Lake .....	4,000,000	.....
Cold Lake .....	5,000,000	.....
Calling Lake .....	4,000,000	.....
Christina Lake .....	2,000,000	.....
Elinor Lake .....	1,000,000	.....
Heart Lake .....	2,000,000	.....
Lac La Biche .....	4,000,000	.....
Lac Ste. Anne .....	4,000,000	.....
Lac La Nonne .....	4,000,000	.....
Lesser Slave Lake .....		6,000,000
Muriel Lake .....	1,000,000	.....
Mosquito Lake .....	2,000,000	.....
Pinehurst Lake .....	2,000,000	.....
Pigeon Lake .....	4,000,000	.....
Touchwood Lake .....	2,000,000	.....
Wabamun Lake .....	5,850,000	.....
Winnifred Lake .....	4,000,000	.....
Whitefish River .....		8,000,000
	<hr/> 58,850,000	<hr/> 14,000,000

Total distribution of eyed and fertilized whitefish eggs—72,850,000

The game fish hatchery at Calgary was operated to capacity and distributions of trout from this point were carried out with small transportation losses. A number of Fish and Game Associations undertook the construction of rearing ponds and their aid and co-operation in this valuable work has been greatly appreciated. The Cardston Rod and Gun Club sponsored an experimental pond on Lees Creek and also took interest in raising fingerlings in a beaver dam site on Tough Creek. The Lethbridge Fish and Game Association organized work-parties and made two small test ponds on a spring site near Metaskoe to ascertain the possibilities of the area for further expansion.

At Pincher Creek the Rod and Gun Club erected a wooden enclosed pond fed by a small bank spring. Plans are being made by the members of this enthusiastic club to extend their project in the near future. The Claresholm Fish and Game Association, which constructed its first rearing pond several years ago, was fortunate enough to construct a new pond on the ranch of Mr. T. Riddle, whose interest made this project possible.

The Northern Alberta Fish and Game Association sponsored a rearing pond adjacent to Kilini Creek, near Heatherdown Post Office, which pond is also fed by spring water, and is in a district where trout are not native, but where it is hoped they may be successfully introduced.



Fish distribution truck

Photo by H. Pollard, Calgary

A new construction was started at what is known as the Raven pond site, near Crammond, at which place plans are being made for future development. Work on this project was seriously handicapped by frequent heavy rains and by difficulty in obtaining labour and materials when needed. Owing to these facts it was impossible to complete the structure before winter and at present the ponds are of a temporary nature only.

With the assistance of Forestry officers, three large rearing ponds were completed on a spring site at Bickerdike, near Edson. During the winter damage to these ponds was evident, due to frost cracks in the dirt embankments, and some loss of fish is to be expected. The extent of the damage and loss will not, however, be known definitely until the spring.

Inglewood rearing ponds had previously sustained a loss of approximately fifty per cent in trout fingerlings through an undisclosed source of pollution. No recurrence of this trouble has manifested itself since August 15, 1942, when mortality among the fingerlings was first observed.

All rearing ponds were stocked with trout fingerlings, and distributions of trout during the year were as follows:—

<i>Rainbow Trout:</i>	Fingerlings	Yearlings
Cardston Rod and Gun Club:		
Olsen pond (Lees Creek) .....	12,500	.....
Tough Creek dams .....	12,500	.....
Lethbridge Fish and Game Association:		
Metaskoe ponds .....	25,000	.....
Pincher Creek Rod and Gun Club:		
Pincher Creek pond .....	40,000	.....
Claresholm Fish and Game Association:		
Riddle Ranch pond .....	45,000	.....
Inglewood rearing ponds .....	110,000	.....
Bickerdike rearing ponds .....	114,700	.....
Raven rearing ponds .....	109,000	.....
Calgary Brewery ponds .....	20,000	.....
Mami Lake .....	35,000	.....
Lees Creek .....		6,200
Beauvois Lake .....		250
Pine Creek pond .....	2,000	.....
Yarrow Creek pond .....	4,000	.....
Yarrow beaver dams .....	4,000	.....
Lagoons-Bow River .....	52,000	.....
Fish Creek-Maclean pond .....		400
	<u>585,700</u>	<u>6,850</u>
<i>Lock Leven and Speckled Trout:</i>		
Northern Alberta Fish and Game Association:		
Kilini Creek pond .....	28,000	.....
Raven rearing ponds .....	193,000	.....
Inglewood rearing ponds .....	80,000	.....
Calgary Brewery ponds .....	23,000	.....
	<u>324,000</u>	.....
<i>Cutthroat Trout:</i>		
Inglewood rearing ponds .....	74,800	.....

## DISTRIBUTION OF ADULT PERCH

Sylvan Lake .....	66,800
Gull Lake .....	43,500
Chain Lakes .....	20,000
Jackfish Lake .....	23,000
Dried Meat Lake .....	25,000
Hastings Lake .....	14,500
Oster Lake .....	20,000
Lac La Nonne .....	30,000
	<u>242,800</u>



Fish Hatchery at Calgary

Photo by H. Pollard, Calgary



DISTRIBUTION OF FORAGE FISH ( <i>Notropis Hudsonius</i> )	
Sylvan Lake .....	85,000
SUMMARY OF DISTRIBUTIONS	
Eyed whitefish eggs .....	58,850,000
Fertilized whitefish eggs .....	14,000,000
Rainbow trout, fingerlings .....	585,000
Lock Leven and Speckled fingerlings .....	324,000
Rainbow trout, yearlings .....	6,850
Cutthroat trout, fingerlings .....	74,800
Percch .....	242,800
Forage minnows .....	85,000
TOTAL .....	74,168,450

*Angling.*—The worst flood conditions since 1932 occurred on the Highwood River during the year. The first flood in May caused heavy damage and flooded large areas of cultivated land, especially south-west of High River. Loss of fish was considerable and rescue work most difficult, it being impossible to get at those stranded on plowed land, owing to water, mud and silt.

The greatest loss was caused by the breaking of the levee on the river bank five miles west of High River, which allowed a large flow of water to gush down into the Little Bow River. Since this gap could not be closed for upwards of five weeks the fish going through the gap were lost. The bridge across Pekisko Creek on the road west of the Bar U Ranch went out during the first flood and was not replaced. Those enthusiastic anglers who gained the upper part of Pekisko Creek on boggy trails were amply repaid with good fishing for their efforts. The headgates of the Bar U irrigation ditch were washed away, but, fortunately, the ditch was shut off at the spillway and only a small total of fish was lost.

The Findlay and McDougal irrigation system on the Highwood was put out of commission, the course of the river was changed and the intake was left high and dry. The flume leading to the headgates of the "T" irrigation ditch on Sullivan Creek was also broken down through flood waters but on account of the headgates being closed there was no loss of fish. The Squaw Coulee irrigation ditch on the Highwood escaped damage by flood waters through prompt action in closing the headgates.

Conditions on Sheep River were similar to those on the Highwood except that there was no overflow on surrounding land, but continued high water made angling poor for the greater part of the season.

Some unavoidable pollution occurred on Sheep River during the floods; the country is hilly and many of the oil wells and drilling rigs are situated in the valleys and on side-hills having natural drainage into the river. All the oil wells have adequate sumps well banked up to take care of oil, drilling fluid and mud under normal conditions, but heavy rainfalls in some instances caused the sumps to overflow.

The run of Rocky Mountain whitefish in the Highwood drainage system which was a month to five weeks later this year, was estimated to be only one-sixth of previous years. Trout fishing was good during clear water periods. The absence of small trout was very noticeable, nearly all fish taken being of good size. All tributary streams of the Highwood had ample water during the winter months and conditions appear excellent for the fish wintering well.

Fewer anglers visited the Willow Creek district than in several previous seasons. This was accounted for by high water, prevailing wet weather and the fact that the bridges on Willow Creek west of Stavely were carried out by flood waters. Angling was quite good after the streams cleared and the North Fork of Willow Creek produced some fine specimens up to three pounds. After the weather improved very satisfactory angling conditions were reported from the



Feeding time at fish ponds, Calgary Hatchery

Photo by H. Pollard, Calgary

South Fork, Trout and Lyndon Creeks, while other waters in the district were fair. Pike appear to be less numerous in this drainage than last year and bull trout (Dolly Vardon) are also on the decline except in the North Fork of Willow Creek.

Angling was good in some sections of the Pincher Creek district, especially the main streams of Pincher, Beaver Mines, Todd and Beaver creeks. Mill and Gladstone Creeks were only fair and Connelly, Screwdriver and Camp Creeks were poor on account of dirty water throughout most of the season. The Crowsnest River gave splendid angling when the water subsided and the same may be said of the Old Man River and its tributaries. Towards the end of the season catches of exceptionally fine trout were taken from the Castle and Carbondale Rivers, but previous to this angling was poor.

In the Waterton River section angling was very good in the main stream of the river, but the smaller streams were anything but satisfactory to the angler. Extensive damage was done to the excellent beaver dams on the main part of Pine Creek through flood water, and it is feared these will be a total loss for some years to come. Rocky Mountain whitefish reappeared in the small streams during the spawning season, the first time in any quantity for several years. Conditions in the district look well for wintering fish, there being an ample flow of water and a larger volume than during the previous winter.

The Bow and Elbow Rivers had an increased number of anglers during the season and, while angling was practically nil in wet weather, as soon as the streams cleared some very good catches of trout were reported.

The Raven and Clearwater sector had excellent fishing at the commencement of the season but tapered off to poor with the onset of frequent rains. Loch Leven were reported as plentiful, but dull skies and only occasional clear water made for light creels.

The watersheds of the McLeod and Athabaska rivers saw a decreased number of anglers this year; the best sport was towards the end of the season, and also for a short time at the commencement, when fine weather afforded the sportsmen an opportunity for fair catches of trout and Rocky Mountain whitefish.

*Licences and Permits.*—An increase is shown in the number of licences issued to commercial fishermen, being 183 more in number than the previous year, with domestic licences also showing an increase of 51. Angling permits suffered a reduction in the number sold of 646, but the class of licence most seriously affected by present restrictions on the sale of gasoline was the motor-boat licence, three only being issued during the year.

	1941-42	1942-43
Angling permits (Seasonal).....	6,510	5,537
Angling permits (limited).....		327
Domestic licences.....	266	317
Fishermen licences.....	1,437	1,571
Commercial licences.....	128	77
Motor-boat licences.....	12	3
	<u>8,353</u>	<u>7,832</u>

*Commercial Fishing.*—Production for the period covered by this report amounts to a total of 6,158,883 pounds of fish of all species. The value to fishermen shows an increase of \$87,783.22 and the value as marketed \$170,831.54 over totals reported for the fiscal year ending March 31, 1942. Prices as a whole improved throughout the year, being a reflection of the rising trend on the New York and Chicago markets.

The following table gives the quantities and values of the different species of fish taken commercially during the fiscal year:—

	Pounds	Landed Value	Marketed Value
Whitefish .....	1,916,496	\$209,136.78	\$428,497.21
Trout (Lake) .....	18,556	3,380.45	5,937.92
Pike .....	504,674	13,311.06	48,853.09
Pickrel .....	254,337	13,478.17	35,192.60
Perch .....	75,816	5,101.52	10,892.60
Tullibee .....	3,324,864	41,133.97	77,265.60
Mixed fish .....	64,140	641.65	1,330.30
	<u>6,158,883</u>	<u>\$286,183.60</u>	<u>\$607,969.32</u>

It is interesting to note the development of commercial fishing in the province since a decade ago and the comparative higher values as well as increased production since the fiscal year of 1932-33. Notwithstanding the present wartime restrictions and man-power shortage, the commercial fisheries have shown a marked rise in production.

Fiscal Year	Pounds	Landed Value
1942-43 .....	6,158,883	\$286,183.60
1932-33 .....	2,655,214	94,439.65
Increase .....	<u>3,503,669</u>	<u>\$191,743.95</u>

*Observance of the Regulations.*—Prosecutions during the fiscal year under review numbered 33, a decrease of 45, and the number of confiscations amounted to 31, or a decrease of 28 from the previous year. The decrease in the number of prosecutions is partly accounted for by a new policy of educating the public to the necessity for observance of the regulations, rather than a rigid enforcement, resulting in a large number of convictions for small and often inadvertent transgressions. Lakes in which net fishing was permitted were the scenes of the major number of confiscations, anglers contributing only 25% of the total number.

Excellent assistance was given by the Forestry personnel and the Royal Canadian Mounted Police, and the Fisheries officers with their assistance were able to maintain a close supervision of fishing activities throughout the province.

Last year a reference was made in the Fisheries Branch section of the Annual Report to the fact that a biological survey at Lesser Slave Lake was undertaken by Doctor R. B. Miller of the University of Alberta. This survey was continued during the year under review and, not only was the work on Lesser Slave Lake carried on, but numerous lakes and streams throughout the province were examined by Doctor Miller.

A system of study was worked out through the co-operation of the University of Alberta and members of the Fisheries Branch were trained to carry on the biological survey and to assist in this work. The result of such training allowed for a very great increase in the biological study of streams and lakes throughout the province.

The principal study by Doctor Miller on Lesser Slave Lake has been an investigation of the infestation of commercial whitefish. This infestation by the pike tapeworm (*Triaenophorus Crassus*), which is found in the meat of whitefish and tullibee has caused considerable concern to the exporters of whitefish to the United States and to other provinces of the Dominion. It has also caused considerable concern to the Pure Foods Administration in the United States to the extent that infested whitefish are being refused entry to that country.

It is possible through the studies carried on by Dr. Miller to trace the life history of this tapeworm. A continued study of the problem, with the possible eradication of one of the hosts of this parasite, may bring a solution to this very serious problem. A study is to be carried on next year, and if necessary the following year, so that every avenue of investigation will be explored and every means of extirpation studied.



Rearing Ponds, Inglewood Sanctuary, Calgary

Photo by H. Pollard, Calgary

## GAME BRANCH

The year 1942-43 was one of continued progress for the Game Branch. During the previous year the Branch had been transferred from the Department of Agriculture to the Department of Lands and Mines where it was possible to secure the assistance of the Forest Division of the Department to help in the supervision and administration of game activities. This policy was continued and enlarged, taking more and more of the Forestry staff into the administration of the Game Branch on a co-operative basis, until the entire ranger staff of the Forestry division assumed the responsibilities of game officials, in addition to their other duties.

Co-operation continued with the Alberta Fish and Game Association, the fur farmers, the fur dealers and all others interested in the conservation and administration of game throughout the province. The whole-hearted co-operation and support of the members of the Department of Zoology at the University of Alberta, who had so ably assisted us during the past year, continued in giving this service. To all those persons and associations who gave this valuable help, and who offered advice from time to time, an expression of gratitude is made. It is only by the help given and interest shown by many persons that game in this province can continue to be developed for the benefit of all citizens, and for those, vitally interested in this natural resource, who come from points outside the provincial boundaries.

The policy of setting up registered trap-lines in that part of the province lying north of the North Saskatchewan River, and a continuation of the same policy in the forest reserves, was put into force and extended, the number of registered trap-line certificates issued during this year being two and a half times the number issued in the previous year. The growth of registered trap-lines is not yet over and expansion is going on continually.

It was found during the year that the inroads made by wolves and other predators on big game and fur had increased to a large extent. It was also found that during the war it was difficult for many trappers to secure all the traps that they required to carry on their business. It was therefore decided, as a temporary policy only, that special snaring permits should be issued to responsible holders of registered trapping certificates throughout the northern part of the province to reduce the ravages of wolves and other predators and to assist the trapper in his fur catch. Each trapper was carefully examined and had to be recommended by a game guardian before he could receive a snaring permit and each person receiving such a permit had his operations carefully supervised to see that no abuse was made of such privilege.

This being the second year of the registered trap-line throughout the northern part of the province, it was felt that by the end of this year such registered trap-lines would be well enough organized to allow for the discontinuance of the general \$2.00 trapping licence which allowed for the trapping of animals on any area of the province. Each person, therefore, securing a general \$2.00 trapping licence was advised by letter that such general licences would be discontinued during the following year, and that if they wished to remain in the trapping business they should register their trap-line and get security of tenure. This brought a steady increase in registrations.

It was found necessary in this year to tighten up considerably on the issuance of special beaver and muskrat permits. Numerous complaints coming to the Game Branch office told of damage being done to irrigation works, water conservation dams and of the flooding of pasture land, the loss of stock and breaking of implements through the work of the muskrat and beaver in certain localities. Permits had been issued in the past to such applicants, but it was found that in

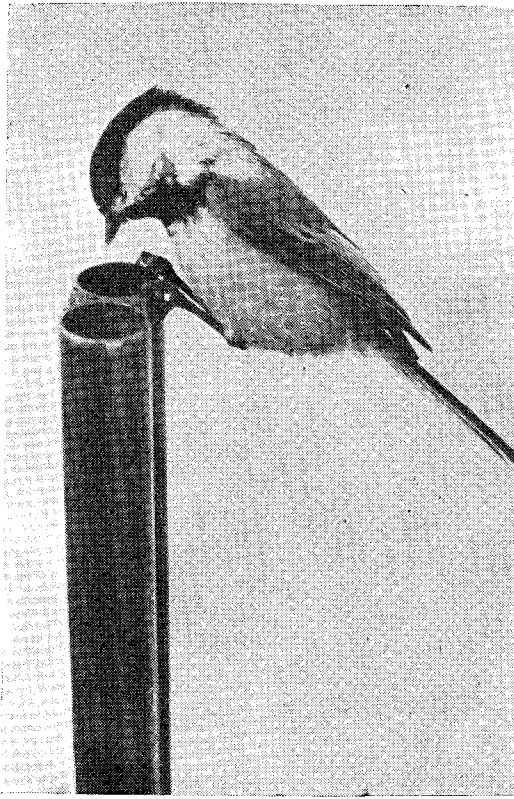
many cases the same applicant appeared each year and it was found necessary that each one should be carefully examined by a game guardian or by a constable of the Royal Canadian Mounted Police, to see that actual damage was being done before a permit was issued. Under an inspection system of this kind many applications were refused where it was found that the applicant was obtaining the permit for the sake of profit and not because of any damage which occurred upon his land.

From the experience gained during previous years of administration of the Game Branch in this Department, it was realized that the payment of wolf and cougar bounty would have to continue. Early in the year it was learned that the Province of Saskatchewan and the Northwest Territories had discontinued the payment of wolf bounty, and it was immediately found that wolves were being brought into the Province of Alberta from these two areas for the collection of bounty. An attempt was then made to get concerted action from the four



Alberta's greatest conservationist

Photo by Alfred Blyth, Edmonton



"Is there anything in this for me?"

Photo by F. H. Riggall, Twin Butte, Alberta

western provinces and the Northwest Territories to pay the same wolf bounty in each of these Divisions under the same set of regulations.

Negotiations were carried on for some time but without success and finally this province was compelled to confine the payment of wolf bounty to the western side of the province, adjacent to the Province of British Columbia, where wolf bounty was being paid. At the same time it became necessary to reduce the bounty on cougar due to the fact that this particular bounty was being reduced in British Columbia. It was, however, possible to raise the bounty on wolf pups from \$5.00 to \$10.00 which added some incentive to the taking of these animals when they were young.

Other predators, those that prey on migratory and upland birds, also came under further study during the year, and it was found that the experience of the Game Branch in conducting crow and magpie competitions had led to considerable difficulties. It was, therefore, decided, for one year at least, to discontinue such competitions, and to study the possibility of a poison campaign being carried out against magpies and to distribute information in regard to crow traps to all parts of the province. A study was made of all crow traps which had been used in other provinces and the one which had been the most successful was picked. Blueprints of this trap were made, instructions printed and these were forwarded to many associations and individuals throughout the province.



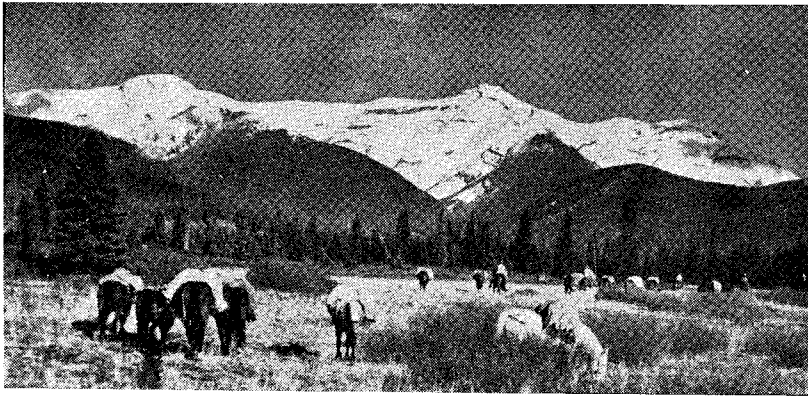


A family group of quadruplets

A study was made of the best method of poisoning magpies, and information was gathered from various sources with a view to obtaining the most effective type available. After some experiment a suitable poison was found and mixed with bait. Before the campaign could get under way, however, it was found necessary to pass legislation for the handling of poison by individuals other than Government employees, and at the meeting of the legislature the Setting of Poisons Act was changed to allow for the poisoning of magpies and other birds or animals. The campaign had to be set aside until the next fiscal year.

For a number of years the Game Branch carried out a policy of appointing licence vendors, fur tax collectors and various individuals throughout the province as voluntary game guardians. Many of these men were extremely interested in the conservation of game but they were loath to take action against their neighbours and friends, with the result that they accomplished very little, and practically nothing was done in the way of enforcement or supervision by a large number of those who lost interest in their appointment. The increase in game guardians, through the co-operation of the Forestry Branch, made it possible for the Department to relieve the voluntary guardians of the responsibility which they had so ably borne over a number of years. The responsibility was then placed upon those who were definitely paid guardians. Not only were the members of the Forestry Branch enlisted in this work, but also the members of the Fisheries Service, giving a combined increase in staff of approximately 150 salaried guardians.

For many years the question of control of fur and animals being shipped across provincial boundaries had been a vital problem. At a meeting of federal



A hunting party on the move

Photo by F. H. Riggall, Twin Butte, Alberta

and provincial game officials at Ottawa in the early part of 1942, an agreement was reached whereby the Dominion Government would make certain changes in the Game Export Act, making it compulsory for a person to have an export permit to ship fur or game across such provincial boundaries. Regulations were set up to prohibit common carriers such as railways, trucks and bus lines, from accepting shipments of fur and game from one province to another without an export permit being attached. This change was of material benefit to the Game Branch in the handling of the fur trade and was welcomed not only by game officials but also by the fur trade in general.

At the Dominion-Provincial Conference, referred to in the above paragraph, the question of damage being done by large numbers of ducks, especially in the eastern irrigation district of the province, came up for discussion. This province drew to the attention of the Dominion Government, under whom the Migratory Birds Convention Act is set up, that the extremely large increase in ducks had brought with it a very grave problem to the farmers in certain parts of this province, particularly in the irrigation districts. These districts are primarily producers of seed and with early cold weather and snow in the fall it was found that ducks and other birds descended upon these crops in large numbers before harvesting operations were completed, with the result that in some cases a large percentage of the crop was a total loss.

Through the efforts of the Department an examination was made by Dominion officials, in conjunction with our own examination, and a change was made in the Migratory Birds Convention Act regulations whereby the whole province or any portion thereof might be set aside as an area in which permits might be issued to shoot ducks which were damaging farm crops. This permit carried with it the privilege of allowing the farmer to secure the assistance of any number of shooters provided each one was supplied with a letter of authorization by the farmer under his permit. This regulation was of great assistance to farmers in these areas.

During the year under review there was closer co-operation with the fur farming industry of the province. This industry, which stands second in all provinces of the Dominion, had two struggling but very active associations, one located in the vicinity of Calgary and one in the vicinity of Edmonton. Through co-operation with the Game Branch local associations were formed at other points in the province, where fur farmers were gathered in districts, and a provincial

organization was set up in order to correlate the activities of all the local associations. This provincial body became responsible for the annual Alberta live animal show and the annual pelt show. They also co-operated with the Department in the holding of field days at local points throughout the province. These field days were of great value to the farmers in outlying points in view of their contact at the show with other breeders and advice given to them by experts attending the field day.

A review was made of the system under which fur farmers were licensed, and it was felt that the schedule should be re-drafted in order to relieve to some extent the small fur farmer and place a higher licence fee upon the farmer established on a more extensive scale, who was in a better position to pay it.

The year 1942-43 has been one of abundance of most game within the province. Migratory birds were here in greater number than for many years past. Native upland birds were at their peak with the newly introduced pheasant increasing tremendously in numbers. Big game was plentiful, with a decided increase in the number of elk, and the fur catch was good. Although market prices were low at the beginning of the fur year they rose rapidly during the season so that a very good price was obtained on practically all fur. It was a good year for game in Alberta.

Statistical information, relative to the administration of the Game Branch during the period under review, is given as follows:

## CONVICTIONS UNDER THE GAME ACT, 1942-43

Number of convictions .....	213
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## CONFISCATED FURS

Amount realized from the sale of confiscated furs during period April 1, 1942 to March 31, 1943 .....	\$ 2,682.68
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## TRAP-LINE REGISTRATIONS

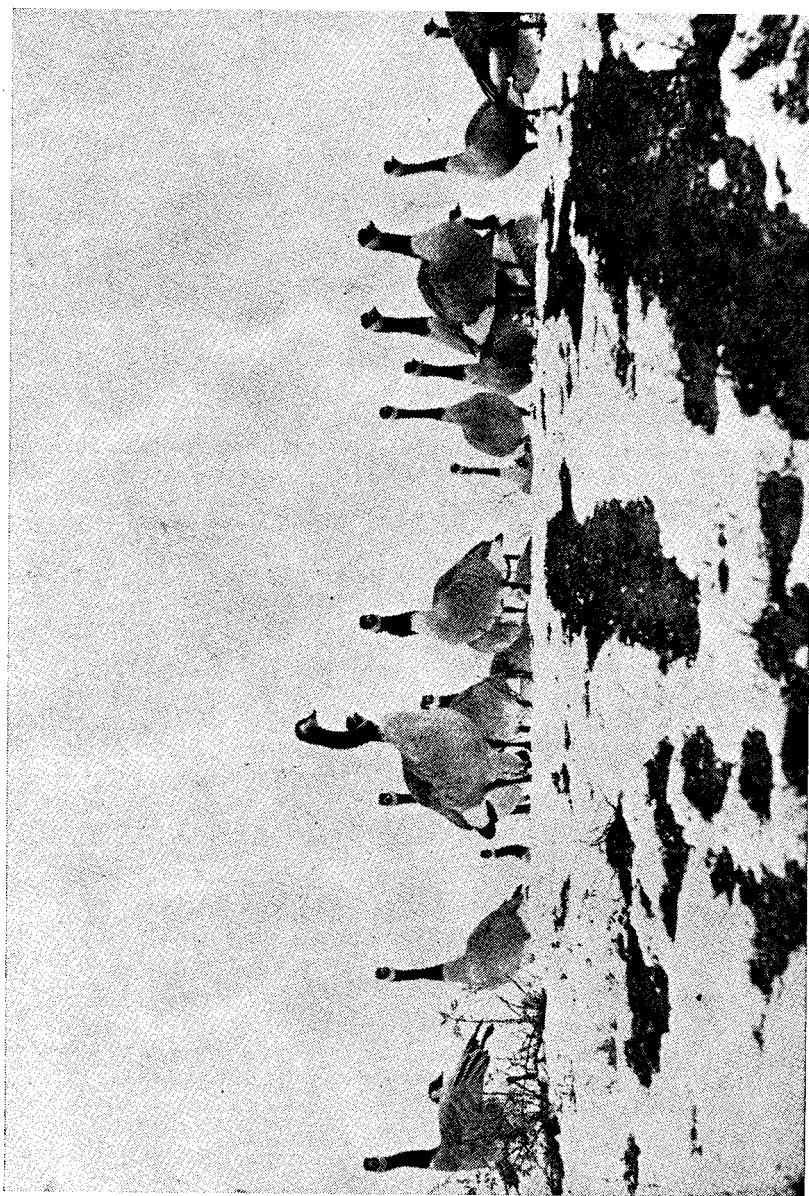
(April 1, 1942 to March 31, 1943)

Registered trap-line certificates issued outside of Forest Reserves, 1,010 at \$10.00 each ..	\$10,100.00
Registered trap-line certificates issued outside of Forest Reserves, free of charge to Treaty Indians—396 ..	
Registered trap-line permits on Forest Reserves, 112 at \$10.00 each .....	1,120.00
Registered trap-line permits on Forest Reserves, issued free of charge to Treaty Indians—25 ..	

## FUR DEALERS LICENCES, ETC.

(April 1, 1942 to March 31, 1943)

Resident fur dealer's licences to carry on business in a city, and elsewhere than in a city—426 licences .....	\$ 4,865.00
Non-resident fur dealer's licences to carry on business in province, 9 at \$100.00 each ..	900.00
Resident Travelling Fur purchasing agents' licences, 65 at \$25.00 each .....	1,625.00
Tanner's licences, 5 at \$10.00 each .....	50.00
Furrier's licences, 19 at \$10.00 each .....	190.00
Resident travelling fur dealers' licences, (north of township 96)—8 at \$15.00, 1 at \$25.00 .....	145.00
	<u>\$ 7,775.00</u>



Inglewood Bird Sanctuary, Calgary

Photo by H. Pollard, Calgary

## FISH AND GAME ADMINISTRATION

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## GAME LICENCES

(April 1, 1942 to March 31, 1943)

	Number of Licences	Fee	
Resident's Game Bird .....	11,536 at	\$ 2.00	\$ 23,072.00
Non-Resident's Bird (Canada) .....	9 at	10.00	90.00
Non-Resident's Bird (Non-Canada) .....	34 at	25.00	850.00
Resident's Big Game .....	6,912 at	2.00	13,824.00
Resident Trapper's .....	3,480 at	2.00	6,960.00
Guest Game Bird .....	3 at	5.00	15.00
Non-Resident's General Game .....	49 at	50.00	2,450.00
Permits to Collect .....	13 at	Various	105.00
Taxidermist's .....	8 at	5.00	40.00
Resident's Special .....	46 at	5.00	230.00
Non-Resident's Special .....	24 at	50.00	1,200.00
Guide's .....	52 at	2.50	130.00
Cold Storage .....	28 at	5.00	140.00
Game Farm .....	7 at	Various	16.00
Outfitter's .....	50 at	Various	615.00
Resident's Special Antelope .....	397 at	5.00	1,985.00
Non-Resident's Special Antelope .....	13 at	15.00	195.00
Permits to Export .....	147 at	Various	287.00
Fur Farmer's .....	1,146 at	Various	5,806.00
Muskrat Permits .....	39 at	1.00	39.00
Beaver Permits .....	60 at	1.00	60.00
			<u>\$ 58,109.00</u>

## FUR TAX REVENUE

(April 1, 1942 to March 31, 1943)

Fur tax ..... \$84,396.85

## MUSKRAT AND BEAVER PERMITS ISSUED, SEASON 1943-43

Muskrat permits issued .....	295
Muskrat reported taken .....	10,914
Beaver permits issued .....	126
Beaver reported taken .....	854

## BOUNTY ON TIMBER WOLVES, TIMBER WOLF PUPS AND COUGAR

During the period April 1, 1942 to March 31, 1943, the following bounty was paid:—

444 timber wolves at \$10.00 .....	\$4,440.00
84 timber wolf pups at \$5.00 .....	420.00
41 cougar at \$15.00 .....	615.00
	<u>\$5,475.00</u>

## ALBERTA FUR PRODUCTION

Season, July 1st, 1942 to June 30th, 1943

Kind of Fur	Total No. of Pelts	Average Value per pelt	Total Value
Badger .....	3,227	\$ 7.25	\$ 23,395.75
Bear .....	120	4.85	582.00
Beaver .....	5,595	41.70	233,311.50
Ermine (Weasel) .....	220,569	1.60	352,910.40
Fisher .....	16	55.50	888.00
Fox (Silver or black) .....	16,248	25.00	406,200.00
Fox (Cross) .....	12,716	17.50	222,530.00
Fox (Red) .....	31,410	13.55	425,605.50
Fox (Blue) .....	668	18.50	12,358.00
Fox (White) .....	12	33.43	401.16
Lynx .....	1,271	45.00	57,195.00
Marten .....	635	35.75	22,701.25
Mink .....	134,127	12.85	1,723,531.95
Muskrat .....	257,757	2.65	683,056.05
Otter .....	165	21.00	3,465.00
Rabbit .....	573,756	.05	28,687.80
Skunk .....	19,727	2.85	56,221.95
Squirrel .....	1,165,367	.36	419,532.12
Wolf (Coyote or Prairie) .....	23,678	16.25	384,767.50
Wolf (Timber) .....	477	17.75	8,466.75
Wolverine .....	12	15.50	186.00
Fitch .....	232	1.50	348.00
House Cat .....	329	.50	164.50
Raccoon .....	188	3.50	658.00
Wild Cat .....	4	2.00	8.00
	<u>2,468,306</u>		<u>\$5,067,172.18</u>

## DEPARTMENT OF LANDS AND MINES

NUMBER OF ANIMALS DECLARED ON FUR FARMS IN ALBERTA ON  
SEPTEMBER 1, 1942

Name	Quantity	Price	Total
Badger .....	4	\$ 4.50	\$ 18.00
Beaver .....	225	30.00	6,750.00
Fox, Silver .....	23,251	25.00	581,275.00
Fox, White Face Silver .....	386	32.50	12,545.00
Fox, Platinum .....	111	75.00	8,325.00
Fox, Cross .....	1,632	20.50	33,456.00
Fox, Blue .....	718	18.50	13,283.00
Fox, Red .....	140	15.75	2,205.00
Lynx .....	8	45.00	360.00
Marten .....	83	35.00	2,905.00
Mink .....	123,956	10.85	1,344,922.60
Muskrat .....	3,823	2.50	9,557.50
Wolf, Prairie .....	82	12.50	1,025.00
Fitch .....	318	1.00	318.00
Nutria .....	165	2.50	412.50
Rabbit .....	711	.75	533.25
Raccoon .....	40	3.50	140.00
	<u>155,653</u>		<u>\$2,018,030.85</u>

NUMBER OF ANIMALS PELTED ON FUR FARMS IN ALBERTA AS PER  
EXEMPTIONS ISSUED

Name	Quantity	Price	Total
Fox, Silver .....	16,868	\$25.00	\$ 421,700.00
Fox, Cross .....	1,632	20.50	33,456.00
Fox, Red .....	140	15.75	2,205.00
Fox, Blue .....	535	18.50	9,897.50
Fitch .....	232	1.00	232.00
Marten .....	4	35.00	140.00
Mink .....	106,179	10.85	1,152,042.15
Wolf, Prairie .....	48	12.50	600.00
Muskrat .....	2,738	2.50	6,845.00
Beaver .....	157	30.00	4,710.00
Rabbit .....	644	.75	483.00
Nutria .....	55	2.50	137.50
Raccoon .....	10	3.50	35.00
	<u>129,242</u>		<u>\$1,632,483.15</u>

NUMBER OF ANIMALS RETAINED FOR BREEDERS ON FUR FARMS IN ALBERTA  
FOR 1943 BREEDING SEASONS

Name	Quantity	Price	Total
Badger .....	4	\$ 5.65	\$ 22.60
Beaver .....	68	37.50	2,550.00
Fox, Silver .....	6,383	31.25	199,468.75
Fox, White Face Silver .....	386	40.50	15,633.00
Fox, Platinum .....	111	95.00	10,545.00
Fox, Blue .....	183	23.50	4,300.50
Lynx .....	8	56.25	450.00
Marten .....	79	43.75	3,456.25
Mink .....	17,777	16.00	284,432.00
Muskrat .....	1,085	2.50	2,712.50
Wolf, Prairie .....	34	13.75	467.50
Fitch .....	86	1.25	107.50
Nutria .....	110	3.25	357.50
Rabbit .....	67	1.00	67.00
Raccoon .....	30	4.50	135.00
	<u>26,411</u>		<u>\$ 524,705.10</u>

## LICENSED ALBERTA FUR FARMERS, SEASON 1942-43

Fox Farms .....	231	Badger .....	1
Mink .....	773	Nutria .....	13
Fox and Mink .....	86	Marten .....	6
Muskrat and Beaver .....	19	Lynx .....	2
Fitch .....	10		
Raccoon .....	5	Number of Licensed Fur Farmers.....	<u>1,146</u>

## Mining Lands Administration

### REPORT OF THE ASSISTANT SUPERINTENDENT OF MINING LANDS, H. H. SOMERVILLE

Another increase was shown in coal and oil production during the calendar year 1942 in comparison with the previous year. Coal output exceeded last year's tonnage by 784,215, and oil increased by 234,627 barrels.

Production totals of Alberta's minerals secured during the calendar year 1942 were as follows:—coal, 7,754,279 tons; petroleum, 10,136,296 barrels; natural gas, 32,443,588 thousands of cubic feet; salt, 22,179 tons; sodium sulphate, 8 tons; cement, 668,043 barrels; lime, 18,821 tons; sand and gravel, 481,644 tons; stone, 12,028 tons; gold, 34 fine ounces and silver, 2 fine ounces.

The total value of the minerals produced was \$42,660,889 of which coal was valued at \$22,562,352; petroleum, \$15,517,266; natural gas \*\$1,622,179; salt, \$221,790; sodium sulphate, \$32; clay products, \$1,013,497; cement, \$1,307,353; lime, \$155,760; sand and gravel, \$218,914; stone, \$40,436; gold, \$1,309 and silver, \$1.

Mineral rights, solid, liquid and gaseous, the property of the Crown in the right of the province, are not sold but are disposed of by lease, reservation, permit or grant for limited periods of time. The Division is responsible for the administration of regulations governing these rights on both provincial and school lands. Revenue is obtained from fees, rentals, bonuses and royalties and during the fiscal year a total of \$1,319,084.09 was received.

Activity was again shown under the regulations governing the reservation of petroleum and natural gas rights for geological and/or geophysical examination, including any investigation relating to subsurface geology, and during this fiscal year more than 1,100,000 acres were granted under reservation. Before commencing or undertaking any geophysical operations, or the examination of the subsurface geology in the province, a licence must be procured from this Division at a fee of \$25.00, and during the fiscal year 13 licences were issued.

Each petroleum and natural gas lease issued prior to June 1, 1941, on which the drilling of a well had not been commenced or which was not grouped in connection with the drilling of a well by September 1, 1942, was cancelled. The holder of each lease so cancelled was given the opportunity up to March 31, 1943, of applying for a new lease of the petroleum and natural gas rights contained in his cancelled lease.

During the year, 1,155 applications for mineral rights were made at the offices of the Mining Recorders at Edmonton, Calgary and Peace River which required the preparation of a similar number of files in the Division. Several inquiries were made daily as to the availability of mineral rights, mostly for petroleum and natural gas leases or reservations, by personal application at the office or by correspondence. The Division dispatched a total of 17,272 letters during the year under review.

The natural resources of Alberta were transferred from the Dominion Government to the control of the Government of Alberta of October 1st, 1930, and the following tabulations show the numbers and acreages of the various leases issued from that date to March 31st, 1943.

\*Based on well-head valuation of 5c per Mcf.



Drillers on floor of Dingman, No. 1 discovery well, Turner Valley, 1914

Photo by H. Pollard, Calgary



# MINING LANDS ADMINISTRATION

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Type of Lease	Active at date of transfer	Issued	Reinstated	Divided	Cancelled	Renewed	Active at March 31st, 1943
Petroleum and natural gas .....	18,863	9,986	113	374	27,039	191	2,106
Petroleum and natural gas, crown reserve .....	5	20	.....	.....	25	.....	.....
Coal, provincial lands .....	620	444	2	6	612	155	305
Coal, school lands .....	60	27	1	.....	56	7	25
Quarrying .....	45	65	.....	.....	56	.....	54
Quartz mining .....	4	.....	.....	.....	.....	.....	4
Salt .....	1	1	.....	.....	1	.....	1
Bituminous sands .....	4	3	.....	.....	5	.....	2
Miscellaneous .....	1	4	.....	.....	2	1	2
Dredging .....	32	8	.....	.....	40	.....	.....
<b>TOTALS</b> .....	<b>19,635</b>	<b>10,558</b>	<b>116</b>	<b>380</b>	<b>27,836</b>	<b>354</b>	<b>2,499</b>

## ACREAGE CONTAINED IN ABOVE LEASES

Type of Lease	Active at date of transfer	Issued	Reinstated	Cancelled	Renewed	Active at March 31st, 1943
Petroleum and natural gas .....	2,454,802	2,157,211	22,288	3,958,473	23,478	652,350
Petroleum and natural gas, crown reserve .....	6,160	22,561	.....	28,721	.....	.....
Coal, provincial lands .....	236,984	131,762	85	181,391	90,575	96,865
Coal, school lands .....	9,570	2,743	53	6,405	1,464	4,227
Quarrying .....	1,675	739	.....	1,049	.....	1,365
Quartz mining .....	182	.....	.....	.....	.....	182
Salt .....	200	6,721	.....	200	.....	6,721
Bituminous sands .....	3,952	5,897	.....	5,706	.....	4,143
Miscellaneous .....	3,560	345	.....	20	22	3,863
<b>TOTALS</b> .....	<b>2,717,085</b>	<b>2,327,709</b>	<b>22,426</b>	<b>4,181,965</b>	<b>115,539</b>	<b>769,716</b>
Dredging (in miles) .....	145	24	.....	169	.....	.....

## STATEMENT OF BUSINESS TRANSACTED, 1942-43—PETROLEUM AND NATURAL GAS

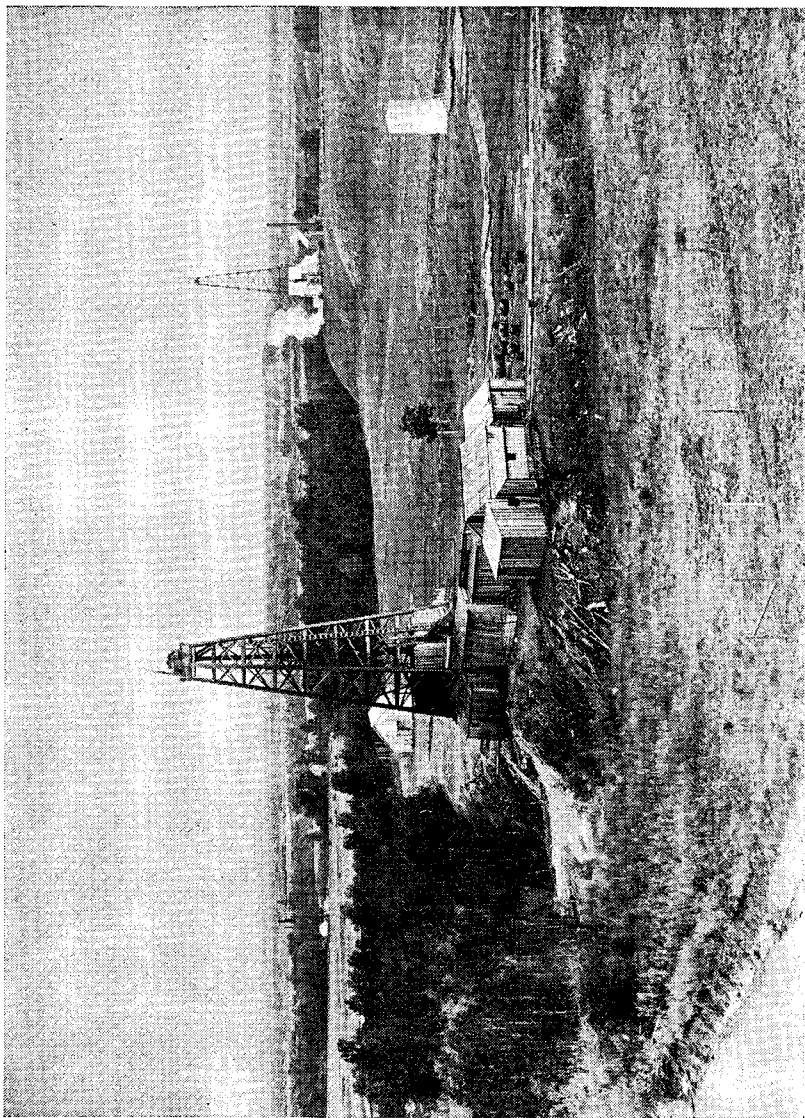
	Number	Acres
Leases issued .....	686	294,065
Leases cancelled and relinquished .....	1,809	366,612
Leases reinstated .....	22	4,166
Reservations granted .....	27	1,103,059
Reservations cancelled and relinquished .....	60	3,615,433
Fees, rentals and bonuses collected .....		\$291,352.63
Royalties collected .....		630,193.57
<b>TOTAL</b> .....		<b>\$921,546.20</b>

## COAL

	Number	Acres
Leases issued on provincial lands .....	15	2,812
Leases cancelled and relinquished on provincial lands .....	21	4,288
Leases reinstated on provincial lands .....	.....	.....
Leases issued on school lands .....	.....	.....
Leases cancelled and relinquished on school lands .....	1	287
Domestic permits issued .....	11	.....
Fees and rentals collected .....		\$ 84,030.37
Royalties collected .....		260,313.62
<b>TOTAL</b> .....		<b>\$344,343.99</b>

## QUARRYING

	Number	Acres
Leases issued .....	4	106
Leases cancelled and relinquished .....	6	5
Sand, stone and gravel permits issued .....	23	.....
Fees and rentals collected .....		\$ 1,283.73
Royalties collected .....		8,523.90
<b>TOTAL</b> .....		<b>\$ 9,807.63</b>



Dingman, No. 1 in foreground and Dingman, No. 2, first two wells in Turner Valley, 1914

Photo by H. Pollard, Calgary

## MISCELLANEOUS

	Number
Bituminous sands leases issued .....	1
Bituminous sands leases cancelled .....	1
Permits to collect bitumen issued .....	3
Alkali permits issued .....	1
Quartz mining claims granted .....	8
Quartz mining certificates of work issued .....	2
Powers of Attorney (quartz) filed .....	19
Placer claims granted .....	1
Powers of Attorney (placer) filed .....	13
Bar-digging permits issued .....	
Salt leases issued .....	
Geophysical licences issued .....	
Fees, rentals and royalties collected .....	\$43,386.27

## ASSIGNMENTS REGISTERED, 1942-43

Nature	Number
Petroleum and natural gas .....	662
Coal, provincial lands .....	8
Coal, school lands .....	2
Quarrying .....	1
Miscellaneous .....	1
TOTAL .....	674

## PETROLEUM AND NATURAL GAS

*Development of Leases.*—The regulations provide that approved expenditures incurred in actual development of petroleum and natural gas rights, acquired under lease or reservation, may be accepted in satisfaction of rentals which otherwise would be payable in cash. During the fiscal year under review, rentals due the province amounting to \$409,180.56 were satisfied from such expenditures and so reduced the revenue of the Division by that amount. The total revenue received in cash for fees, rentals and bonuses was \$291,352.63 which, added to the expenditure accepted in lieu of rentals, makes a total of \$700,533.19.

*Disposal by Public Tender.*—Bonuses amounting to \$3,566.75 were accepted during the fiscal year at sales by public tender of petroleum and natural gas rights formerly comprised in cancelled leases or reservations.

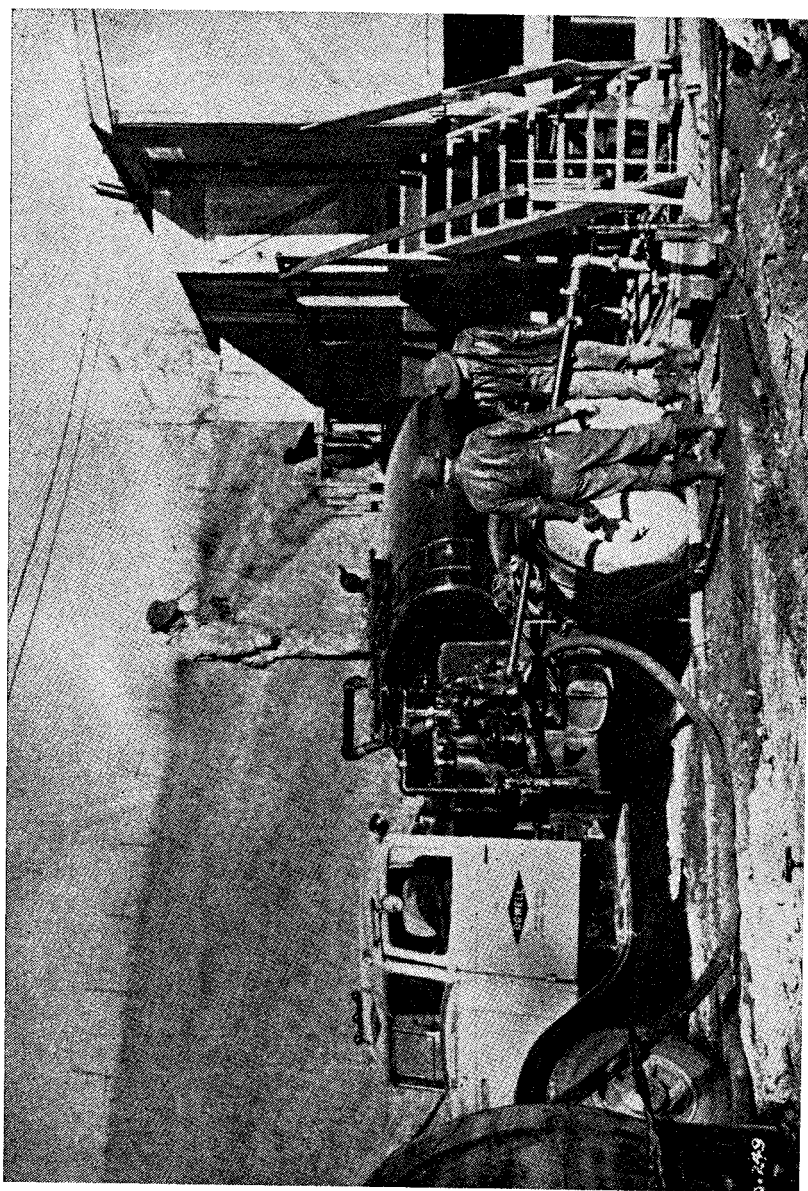
*Number and Area of Leases.*—During the year, 686 petroleum and natural gas leases were issued covering an area of 294,065 acres and at the close of the fiscal year a total of 2,106 leases were active containing an area of 652,350 acres.

*Reservations.*—There was continued activity under the regulations governing the reservation of petroleum and natural gas rights, the property of the Crown, for geological and/or geophysical examination, including any investigation relating to sub-surface geology. By Order in Council, No. 1901/42, dated December 21, 1942, provision was made for granting credit for expenditures incurred in the drilling of a well for correlation purposes on a site withdrawn from a reservation, and such credit could be applied to the rental for the first year of leases following the reservation, but not to exceed an area of 50,000 acres. Twenty-seven reservations were granted in this fiscal year covering an area of 1,103,059 acres and 60 were cancelled containing an area of 3,615,433 acres. At the close of the fiscal year 1,169,041 acres were under reservation.

## COAL

New coal leases may be granted either for the extension of existing operations or for small mines where the local market cannot be economically supplied from operating mines in the vicinity. In the fiscal year, 15 leases were issued containing 2,812 acres, being made up of new and renewal leases. There are now 330 active leases comprising 101,092 acres.

During the current fiscal year the following quantity of coal, subject to Crown royalty, was mined:—



Acidizing Major, No. 4, Turner Valley

Photo by H. Pollard, Calgary

# MINING LANDS ADMINISTRATION

81

	Tons
Provincial lands' leases .....	3,289,508
School lands' leases .....	496,646
Coal lands' and mineral sales .....	1,049,693
<b>TOTAL</b> .....	<b>4,835,847</b>

Crown royalties collected on coal mined in Alberta since April 1st, 1907, are as follows:—

## CROWN ROYALTIES COLLECTED ON COAL

Fiscal Year	Royalty Paid	Fiscal Year	Royalty Paid
1907-08 .....	\$ 7,621.67	1920-21 .....	\$ 190,545.80
1908-09 .....	5,322.39	1921-22 .....	185,436.88
1909-10 .....	153,559.98	1922-23 .....	171,723.83
1910-11 .....	218,932.88	1923-24 .....	210,389.53
1911-12 .....	104,894.55	1924-25 .....	148,979.10
1912-13 .....	142,997.79	1925-26 .....	188,277.94
1913-14 .....	147,198.75	1926-27 .....	218,150.10
1914-15 .....	104,489.77	1927-28 .....	231,757.96
1915-16 .....	67,190.17	1928-29 .....	254,616.27
1916-17 .....	149,447.82	1929-30 .....	248,083.71
1917-18 .....	144,634.75	1930-31 (First half) * .....	90,052.07
1918-19 .....	175,687.66		
1919-20 .....	181,641.80		
			<b>\$3,741,633.17</b>

	Provincial Lands	School Lands	
1930-31 (Last half) * .....	\$105,126.51	\$ 5,014.29	110,140.80
1931-32 .....	145,170.33	6,354.09	151,524.42
1932-33 .....	143,800.01	4,971.78	148,771.79
1933-34 .....	193,527.82	9,520.13	203,047.95
1934-35 .....	176,122.43	12,365.39	188,487.82
1935-36 .....	186,691.23	19,779.76	206,470.99
1936-37 .....	175,214.33	18,596.00	193,810.33
1937-38 .....	158,227.11	15,159.15	173,386.26
1938-39 .....	143,070.78	9,270.23	152,341.01
1939-40 .....	168,802.75	7,812.78	176,615.53
1940-41 .....	200,045.68	15,841.24	215,886.92
1941-42 .....	216,777.95	22,849.83	239,627.78
1942-43 .....	235,613.19	24,700.43	260,313.62
<b>TOTAL</b> .....			<b>\$6,162,058.39</b>

\*Date of transfer of Alberta's natural resources from federal to provincial control, and date also of the creation of the Department of Lands and Mines, Alberta, October 1st, 1930.

*Permits for Domestic Use.*—Permits to mine coal on provincial lands by strip-mining methods for domestic use may be issued to actual settlers on payment of a fee of one dollar and royalty at the rate of ten cents a ton. Each permit expires on March 31st following its date of issue. During the year 11 permits were issued authorizing an extraction of 230 tons, none of which could be bartered or sold.

## QUARRYING

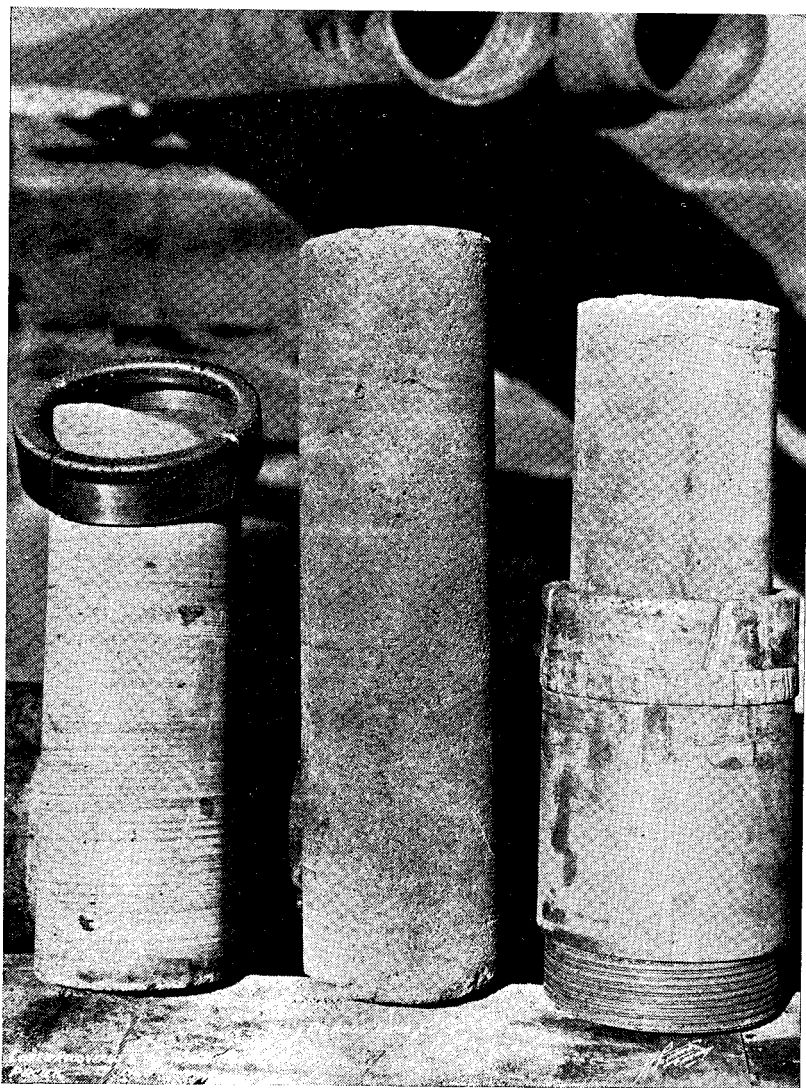
Three quarrying leases were issued on surveyed lands containing an area of 106 acres and one lease was issued during the fiscal year for removing gravel from the bed of the Oldman River. Extraction of 183,754 cubic yards of sand, gravel, limestone and shale from provincial lands was reported for the calendar year, 1942.

At the close of the fiscal year, 54 leases were active containing an area of 1,365 acres.

*Permits.*—Sand, stone and gravel permits are issued on the beds of rivers and lakes at a fee of \$2.50 and a royalty of five cents a cubic yard and expire on the 30th day of November following the date of issue. In this fiscal year 22 permits were issued for the extraction of 71,898 cubic yards.

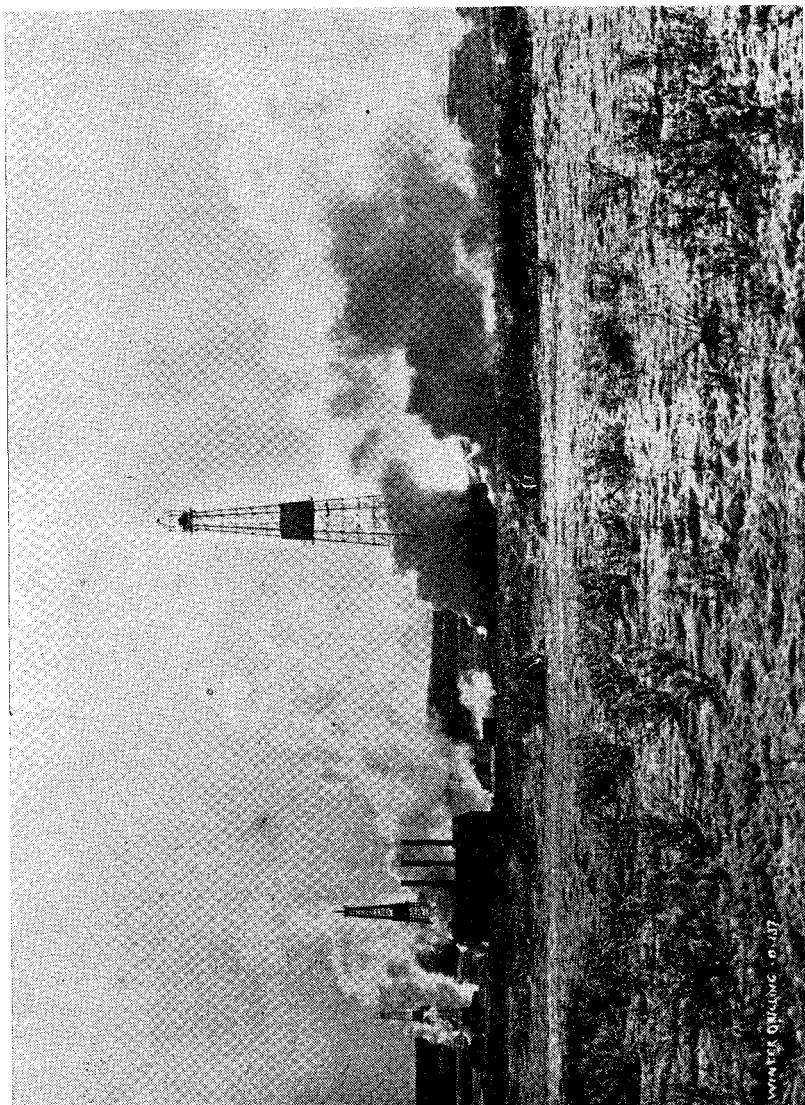
## DREDGING

No applications for dredging leases were made during the year.



Diamond bits, before and after use, and core of porous lime

Photo by H. Pollard, Calgary



Winter drilling in Turner Valley

Photo by H. Pollard, Calgary

### QUARTZ

One new claim was recorded and seven claims were renewed by certificates of work during the fiscal year in township 14, range 3, west of the 5th meridian. The claim in the Drumheller district for the recovery of bentonite was renewed and royalty of \$73.83 was paid on this claim representing 2½% of the value of the bentonite recovered.

The four quartz leases covering 181.8 acres issued by the Department of the Interior are still active.

### PLACER

Activity along the Athabaska River in townships 63 and 64, range 3, west of the 5th meridian, continued during the year and 19 grants were issued for staked claims. Recovery of 4 ounces of gold was reported during the year.

### BITUMINOUS SANDS

Two leases are active at present in the McMurray area containing 4,143 acres, and two separation plants are experimenting in the area. Absand Oils Limited treated 11,156 tons extracting therefrom 10,041 barrels of crude oil.

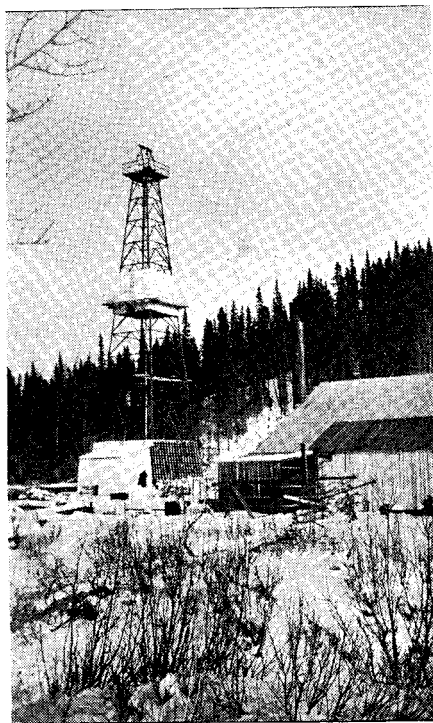
### SODIUM CHLORIDE (Common Salt)

The salt plant, operated by Industrial Minerals Limited during the fiscal year, reported extraction of 22,179 tons of salt on which royalty at the rate of



Flare from completed Ram River, No. 2 well





Ram River, No. 3 well drilling—94 foot steel derrick

twenty cents per ton was collected. This plant is located on the lease issued in 1937 covering 6,720.82 acres.

#### MISCELLANEOUS LEASES

The lease covering an area of 22.5 acres for the removal of sodium sulphate (glauber salts) occurring in comparatively pure condition in sloughs and shallow lakes was renewed for a further period of five years. Production of eight tons was reported for the fiscal year.

#### SPECIAL PERMITS

Two annual permits for the collection of bitumen issuing from old wells in the Peace River District were again renewed and a similar permit was issued on another well in the Peace River District. Collection of 2,318 gallons was reported during the year.

#### PETROLEUM AND NATURAL GAS

The drilling and production of petroleum and natural gas wells in the province are administered by The Petroleum and Natural Gas Conservation Board, New Telephone Building, Calgary, and particulars as to drilling activity and statistical data are now included in its reports.

## Technical Division

### REPORT OF THE SUPERINTENDENT OF THE TECHNICAL DIVISION, T. W. DALKIN

*Notifications (Land Patents).*—By March 31st, 1943, a grand total of almost three and a half million acres of land had been patented by the Crown. The exact total, as at this date, was 3,498,477.426, of which 229,699.519 acres were patented during the fiscal year now under review. This latter figure is about 133 acres more than the previous year. A total of 1,516 notifications were issued, which includes 133 for subdivision lots covering 192 parcels. Complete details are as follows:—

Classification	Notifications	Area (Acres)
Homesteads .....	924	142,577.074
Sales (including lots in subdivisions) .....	90	3,435.61
Second homesteads .....	192	29,044.44
Soldier grants .....	19	2,950.71
Special grants .....	128	464.955
Transfer of lands .....	3	25,333.33
Revival of titles .....	11	2,381.07
Quit claims .....	2	80.00
Exchanges of land .....	4	334.00
Exchanges of land (Special Areas) .....	31	6,848.78
Certificates of tax sale redemption .....	5	800.00
School lands' sales .....	106	15,448.55
School lands' grants .....	1	1.00
<b>TOTALS</b> .....	<b>1,516</b>	<b>229,699.519</b>

Details of sales in subdivisions which are included in the 90 notifications referred to above:

	Notifications	No. of Lots	No. of Blocks
Bellevue, Plan 149 Gen. ....	1	1	....
Bideford, Plan 1509 BA .....	1	2	....
Canmore, Plan 39 Gen. ....	7	8	....
Carbondale, Plan 232 AI .....	1	7	....
Coleman, Plan 6808 CU .....	2	3	....
Kimball, Plan 928 J .....	1	3	....
McMurray Townsite, Plan 616 AO .....	1	1	....
Oyen, Plan 3732 CD .....	1	2	....
Peace River Landing Settlement, Plan 5617 BK .....	1	6	....
Retlaw, Plan 7285 AQ .....	1	2	....
Richdale, Plan 6978 AW .....	1	1	....
Walsh Townsite, Plan 3644 B .....	1	2	....
<b>TOTALS</b> .....	<b>19</b>	<b>38</b>	....

School lands' sales included in the 106 notifications referred to above:

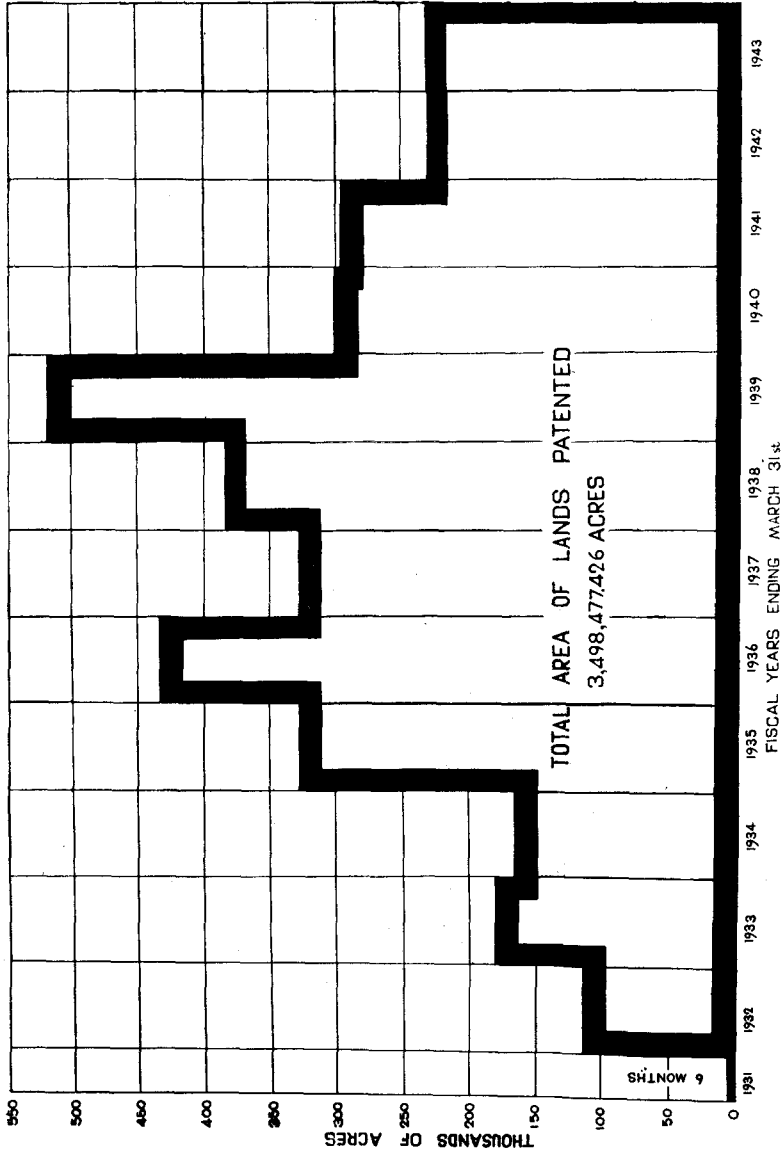
	Notifications	No. of Lots	No. of Blocks
McLennan Townsite, Plan 1394 EU .....	11	14	....

Special grants included in the 128 notifications referred to above:—

	Notifications	No. of Lots	No. of Blocks
East Coulee, Plan 4128 EQ .....	102	128	1
Lamerton, Plan No. 75 .....	1	12	....
<b>TOTALS</b> .....	<b>103</b>	<b>140</b>	<b>1</b>

Reference was made in the 1940 report to a survey that was made by this Department in order to eliminate an unsatisfactory squatter situation at East Coulee that had arisen between the Empire Collieries, Limited and several of their employees and others who had squatted upon the land. After a plan of survey was prepared and registered in the Land Titles Office this Department negotiated with a "Citizens' Committee" and, as payments were received by that committee

CHART SHOWING ACRES PATENTED  
FROM OCTOBER 1st 1930 TO MARCH 31st 1943



for the lots, the notifications were issued to the owners. This procedure took a great deal of time and patience but it can now be reported that through the assistance rendered by this Department the matter has been brought to a successful conclusion and the 102 notifications covering 128 lots in East Coulee, appearing in the details of notifications above, are evidence of this fact. The balance of the lots in the subdivision not included in these notifications will now be included in a notification to be issued in favour of the Citizens' Committee for administration by that body.

The three transfers of land, aggregating 25,333.33 acres, need, perhaps, some explanation. When the British Block was formed in the Tilley East Area, the Hudson's Bay Company, at the request of the Department of National Defence, transferred to the province all the Hudson's Bay lands in that area as defined at that time. Subsequently the boundaries of the British Block were changed and one of the above transfers comprising 24,047.73 acres, more or less, lying within the amended boundaries, was transferred to His Majesty the King in the right of Canada, and an area comprising 1,125.60 acres of these Hudson's Bay lands lying outside of the amended boundaries was transferred back to the Hudson's Bay Company. The balance of this total area of 25,333.33 acres, namely 160 acres, represents a transfer to the Lomond Consolidated School District No. 20.

Whilst the area patented comprised 229,699.51 acres, more or less, the Crown received title to almost an equal amount of land through tax recovery proceedings and reversionment, the majority of the lands being in the Special Areas, particulars of which are as follows:—

	No. of Titles	Area Inside Special Areas, Acres	Area Outside Special Areas, Acres	Total Acres
Tax Recovery .....	632	211,006.39		211,006.39
Revested .....	63	7,434.53	2,099.52	9,534.05
Total .....	695	218,440.92	2,099.52	220,540.44

This total figure of 220,540.44 acres greatly exceeds last year's tax recovery and reversionment lands by 84,756.85 acres. Taking the above figures into consideration the total areas of land acquired by the province since the return of the resources are as follows:—

Inside Special Areas .....	2,165,726.92 acres
Outside Special Areas .....	1,029,997.52 acres
Total .....	3,195,724.44 acres

Through negotiations with the Canadian Pacific Railway Company arrangements were made whereby this Company transferred an area of 1,810.71 acres of unsubdivided townsite holdings scattered through the Special Areas, and in the acreage referred to above as being reversioned in the Special Areas, it is interesting to know that the following areas are included:—

Townsite	Land	Area
Atlee .....	Pt. L.S.'s 5, 6, 11, 12 Sec. 5-22-7 W 4th Meridian .....	93.19 acres
Bindloss .....	Pt. S.W. ¼ 19-22-2 W 4th Meridian .....	56.38 acres
Buffalo .....	Pts. Sec. 29-21-5 W 4th Meridian .....	358.79 acres
	Pts. Sec. 30-21-5 W 4th Meridian .....	527.50 acres
Empress .....	Pts. E. ½ 14-23-1 E 4th Meridian .....	231.52 acres
Halsbury .....	Pts. N.W. ¼ 18-21-8 W 4th Meridian .....	140.42 acres
Majestic .....	Pts. S.W. ¼ 31-21-6 W 4th Meridian .....	133.45 acres
Pancras .....	Pts. N.W. ¼ 26-21-4 W 4th Meridian .....	111.58 acres
Sharrow .....	Pts. S.E. ¼ 35-22-2 W 4th Meridian .....	145.28 acres
Stair .....	Pt. S.E. ¼ 19-13-6 W 4th Meridian .....	12.60 acres
Total .....		1,810.71 acres

Since the inception of this Department on October 1st, 1930, notifications have been issued for

- 264 school sites,
- 41 church and cemetery sites,
- 61 cemetery sites.

The number of school sites indicates the great interest in and growth of education in the province. School sites are free grants from this Department, but the church and cemetery sites can only be obtained by purchase in accordance with the regulations. On and after April 1st, 1941, all the Land Titles Office registration fees have been collected by this Department, so that the registration of the notification may be effected and title issued without delay. Previous to this date, it was the obligation of each owner to send direct to the Registrar the fees payable in connection with the registration of the notification and the issue of certificate of title, covering these sites, which include school sites. According to a check that has just been made, however, there are still lying in the Land Titles Office notifications covering

- 129 school sites,
- 11 church and cemetery sites,
- 3 church sites,
- 9 cemetery sites,

for which the Land Titles Office has not received registration fees, and for which consequently no certificates of title have issued. Whilst no reflection is made here upon the efficiency of the secretary-treasurers of the various school districts, it is nevertheless a fact that they appear to be dilatory, and some effort should be made to pay the registration fees and clear the records in the Land Titles Office as well as in this office.

*Licences of Occupation.*—Plans were checked and in some cases prepared and descriptions drawn for licences of occupation, which were granted for various purposes to private individuals, companies and corporations. Included in the smaller projects were such licences of occupation for the construction, operation and maintenance of reservoirs, for the storage of water for irrigation purposes, a right of way to a spring to carry the water supply to the village of Grimshaw, a pipe-line right of way for a pump house for the Northern Alberta Railways Company and also a site for a boat house on Crowsnest Lake in the south-east quarter of section 9, township 8, range 5, west of the 5th meridian. Rights for another small project but in a way rather unique were granted in the south-west quarter of section 3, township 57, range 11, west of the 5th meridian, which permitted the construction, operation and maintenance of a ditch for the purpose of diverting water into a swimming pool, a community project. Other licences of occupation which were granted covered rights for the construction and maintenance of roadways for logging operations, whilst the Calgary Power Company, Limited, were granted two licences of occupation for the purpose of constructing, maintaining and operating two power transmission lines, one over a right of way with a general width of 66 feet and comprising an area of 40.67 acres, more or less, extending from Canmore to Exshaw. The other starts at the north-west quarter of section 7, township 26, range 11, west of the 5th meridian, near Anthracite, to the west boundary of the Stony Indian Reserve. This right of way varies in width from 30 to 66 feet and contains an area of 132.77 acres, more or less.

*Exchanges of Land.*—Thirty-one residents, mostly old timers in the Special Areas, benefitted through our Exchange of Land Policy, whereby one or more quarter sections of Crown lands were exchanged for an equal area of settlers' lands.

In the dried out areas these settlers have to face many problems, and it is a source of satisfaction to know that their troubles have been alleviated to a certain extent by the exchange of lands. Investigation of all applications are made by the Special Areas Board at Hanna in the first place, and the approval of the Board must be given before they are referred to Edmonton. Here a final investigation is made, including a thorough examination of all titles affected and the amount of indebtedness outstanding by way of taxes, liens, etc., and upon approval of the Deputy Minister being obtained then an Order in Council is requested permitting of the exchange. Many reasons are given as to why the exchanges should be granted, but the main reason is chiefly to consolidate the residents' holdings. Other reasons are that the lands are more suitable, closer to schools, closer to a railway or a better water supply, etc., as the information which follows will reveal.

Name and Address	Lands transferred to Crown	Lands granted in exchange	O.C. No. Date
D. N. Macdonald, Consort	S.W. 1-36-5-4 (161 acres)	N.W. 35-35-5-4 (160 acres)	647/41 13/5/41
This land was acquired by transfer by Mr. Macdonald from Mr. L. B. Macdonald. The exchange was granted in order to consolidate his holdings.			
K. Konowsky, Redcliff	S.E. 27-13-10-4 (160 acres)	S.E. 28-13-9-4 (160 acres)	647/41 13/5/41
Mr. Konowsky was the original homesteader on the S.E. 27-13-10-4 and obtained a title on the 18th of December, 1920. This exchange was granted in order to consolidate his holdings.			
M. T. Johnson, Sedalia	N.W. 32-33-4-4 (160 acres)	N.E. 9-33-5-4 (160 acres)	647/41 13/5/41
Mr. M. T. Johnson obtained his land from M.D. Stewart No. 302 and acquired title in 1929. The exchange was granted in order to obtain more suitable land with better surrounding roads and locate his children close to a school.			
G. Gunderson, Jenner	N.E. 28-19-9-4 (160 acres)	N.W. 5-20-9-4 (160 acres)	647/41 13/5/41
Mr. Gunderson purchased his land and obtained title in 1918, the exchange being granted in order to consolidate his holdings.			
L. Hvame, Bowell	N.W. 13-16-7-4 (160 acres)	S.E. 28-14-7-4 (160 acres)	647/41 13/5/41
Mr. Hvame obtained title to his land on the 27th of January, 1936, and as well as consolidating his holdings he obtained a better water supply.			
Mrs. M. O. Michaels, Excel	N.E. 13-30-5-4 (160 acres)	S.W. 35-28-6-4 (160 acres)	647/41 13/5/41
	S.E. 13-30-5-4 (160 acres)	S.E. 35-28-6-4 (160 acres)	
The north-east of section 13 was Mrs. Michaels' homestead, for which she obtained a patent in 1913; the south-east of section 13 was acquired by sale from the Crown in 1917 and this exchange brought her closer to railway facilities and a more settled part of the area.			
James G. Stewart, Sunnynook	S.W. 32-27-11-4 (160 acres)	N.E. 32-27-11-4 (162 acres)	647/41 13/5/41
This quarter section was Mr. Stewart's homestead to which he acquired title in 1935. The exchange resulted in obtaining a water supply and improvements.			
A. H. Reutemann, Hanna	N.E. 13-29-14-4 (160 acres)	S.W. 14-29-14-4 (160 acres)	647/41 13/5/41
Mr. Reutemann obtained title to the north-east quarter of section 14 in 1934 by purchase, and this exchange was granted in order that he may have access to irrigable land.			
G. E. Griffith, Cessford	S.E. 32-23-11-4 (160 acres)	N.E. 1-24-12-4 (160 acres)	647/41 13/5/41
Mr. Griffith was the original homesteader on this land and acquired patent in 1916. This exchange will consolidate his holdings.			
G. Hausch, Hanna	N.E. 12-32-12-4 (160 acres)	S.W. 25-32-12-4 (160 acres)	647/41 13/5/41
Mr. G. Hausch obtained by purchase title to the north-east 12-32-12-4 in 1929, the exchange being granted to consolidate his holdings.			
R. W. Ringdahl, Sunnynook	W. ½ 21-27-11-4 N.W. 24-27-11-4 S.W. 25-27-11-4 N.E. 26-27-11-4 (830 acres)	S. ½ 14-27-11-4 E. ½ 15-27-11-4 S.E. 22-27-11-4 (803.33 acres)	647/41 13/5/41
Mr. Ringdahl obtained titles to his lands from 1917 to 1928 and this exchange results in the consolidation of his holdings.			

Name and Address	Lands transferred to Crown	Lands granted in exchange	O.C. No. Date
J. T. Rowe, Sunnynook	N.W. 4-27-10-4 (161 acres)	N.W. 16-27-10-4 (161 acres)	647/41 13/5/41
Mr. J. T. Rowe homesteaded this quarter and obtained patent in 1929. This exchange will consolidate his holdings.			
A. D. Polson, Consort	N.W. 5-36-5-4 (160 acres)	S.E. 36-35-6-4 (160 acres)	1028/41 22/7/41
Mr. Polson homesteaded his land and acquired patent in 1920, and through this exchange his holdings are now consolidated.			
W. McNally, Cappon	N.W. 34-24-5-4 N.E. 27-24-5-4 (320 acres)	S. ½ 4-29-5-4 (320 acres)	894/41 2/7/41
Mr. McNally's lands are both his homesteads and he received patent to each of his quarter sections in 1915 and 1933 respectively. This land is located closer to town and railway facilities and his children are also closer to a school.			
Mrs. I. B. King, Travers	S.W. 7-15-19-4	S.W. 4-15-19-4	336/42 24/3/42
This is really an exchange of homestead entries, which consolidated her holdings.			
Mrs. B. H. King, Travers	N.W. 6-15-19-4 (157.99 acres)	S.E. 5-15-19-4 (160.59 acres)	337/42 24/3/42
Mrs. B. H. King acquired title to her land by purchase in 1930 and through this exchange her holdings are consolidated.			
Mrs. I. B. King and Mrs. B. H. King are one and the same person.			
Mr. G. M. King, Travers	N.E. 1-15-20-4 (158 acres)	S.E. 9-15-19-4 (134.03 acres)	338/42 24/3/42
Mr. G. M. King obtained title by purchase to the north-east quarter of one in 1936, and this exchange consolidated his holdings.			
R. Gardiner, Excel	S.E. 19-30-4-4 (160 acres)	S.E. 24-30-5-4 (160 acres)	446/42 9/4/42
Mr. Gardiner purchased this land and obtained title in 1923, and through this exchange his holdings are consolidated.			
R. N. Rose, Redcliff	W. ½ 23-13-6-4 (320 acres)	E. ½ 14-13-6-4 (320 acres)	447/42 9/4/42
Mr. Rose purchased his half section in 1934 and through this exchange he now has access to water supply and pasture.			
W. H. Caswell, 738 Crescent Road, Calgary, Alberta	N.E. 22-29-3-4 (160 acres)	N.E. 9-29-2-4 (159.07 acres)	559/42 28/4/42
Mr. Caswell homesteaded his quarter and obtained patent in 1926 and his holdings are consolidated through this exchange.			
H. H. Forster, Cessford	N.E. 28-23-13-4 (160 acres)	S.E. 21-23-13-4 (160 acres)	560/42 28/4/42
Mr. Forster was the original homesteader on this land and acquired patent in 1918 and his holdings are consolidated through this exchange.			
J. T. Watkins, Ranch Box, Medicine Hat	N. ½ 23-13-4-4 (318.10 acres)	N.W. 35-13-4-4 N.W. 26-13-4-4 (320 acres)	562/42 28/4/42
Mr. Watkins obtained title to this land in 1926 by purchase and through this exchange his holdings are consolidated.			
S. Andahl, Rose Glen	S.W. 35-15-4-4 (161 acres)	S.E. 18-16-3-4 (160 acres)	614/42 5/5/42
Mr. Andahl was the original homesteader on the south-west 35-15-4-4 and obtained patent in 1914, and through this exchange his holdings are consolidated.			
R. Peterkin, Rose Lynn	N.W. 16-28-15-4 (161 acres)	N.W. 15-28-15-4 (161 acres)	615/42 5/5/42
R. Peterkin homesteaded the north-west 16-28-15-4 and received patent in 1934, and through this exchange his holdings are consolidated.			
E. G. Haley, Lomond	S.E. 18-17-19-4 (158.98 acres)	S.E. 16-16-18-4 (160 acres)	812/42 9/6/42
Mr. Haley obtained title to this land in 1929 by purchase and through this exchange his holdings are consolidated.			
G. A. Skretting	N.E. 17-18-18-4 S.E. 18-18-18-4 (320 acres)	N. ½ 28-14-18-4 (320 acres)	813/42 9/6/42
Mr. Skretting homesteaded the south-east 18 and received patent in 1938. The other quarter section was acquired by purchase in 1935. Through this exchange his children are now located closer to school.			

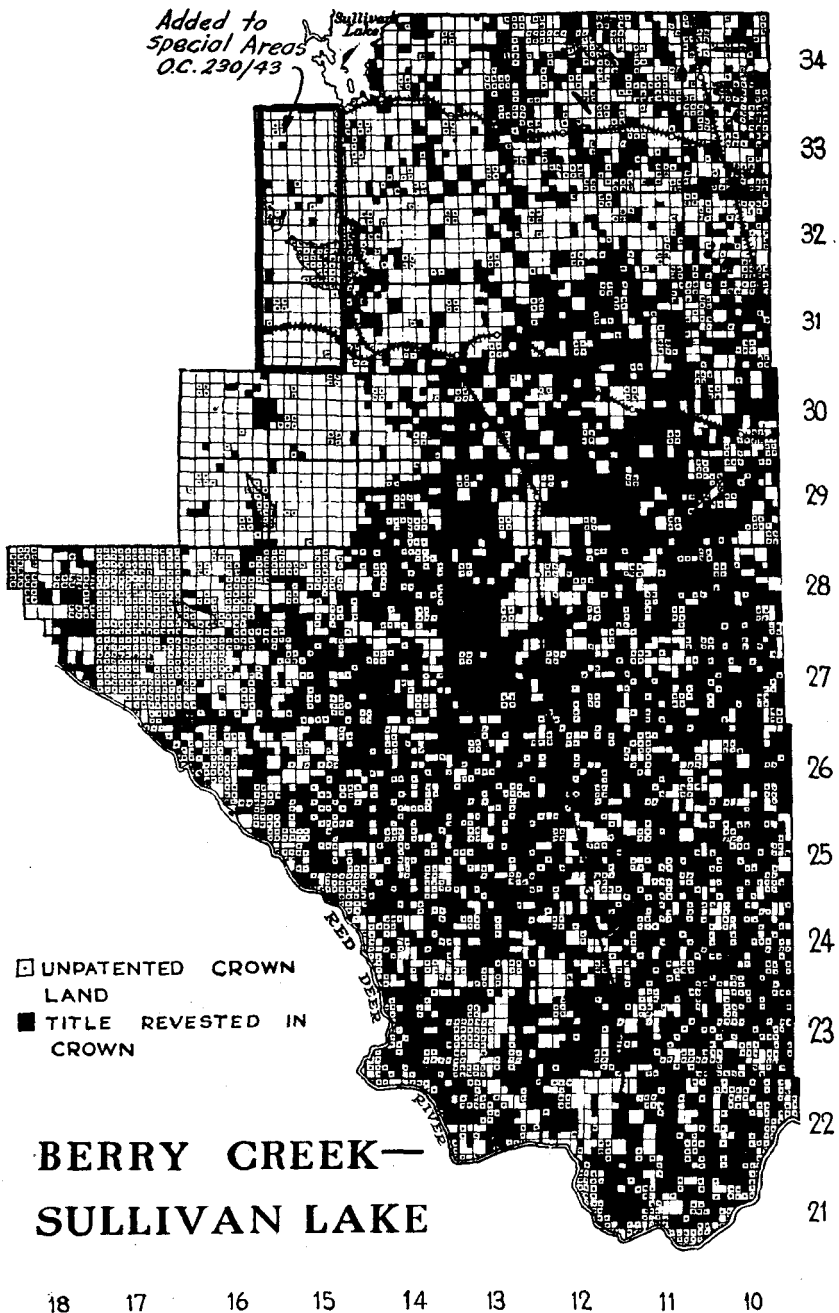
Name and Address	Lands transferred to Crown	Lands granted in exchange	O.C. No. Date
Mrs. H. B. Tew, Medicine Hat.....	N.E. 7-13-4-4 (160 acres)	S.E. 16-13-4-4 (160 acres)	1128/42 6/8/42
Mrs. Tew has now consolidated her holdings through the transfer of this land to the Crown, which she purchased in 1927.			
W. G. Clark, Altario .....	S.E. 25-32-2-4 (160 acres)	N.E. 35-32-2-4 (160 acres)	1129/42 6/8/42
Mr. Clark homesteaded the south-east 25-32-2-4 and received patent in 1934. Through this exchange he is now closer to his buildings.			
H. J. Roeser, Redcliff .....	S.W. 3-14-9-4 (160 acres)	S.W. 30-13-7-4 (160 acres)	1150/42 6/8/42
Mr. H. J. Roeser obtained title to this land in 1939 and through this exchange his holdings are now consolidated.			
H. Dean .....	E. $\frac{1}{2}$ 36-32-7-4 N.W. 36-32-7-4 (480 acres)	E. $\frac{1}{2}$ 9-32-7-4 N.W. 9-32-7-4 (476.76 acres)	1203/42 18/8/42
The north-east $\frac{1}{4}$ of section 36 was Mr. Dean's homestead, for which he obtained patent in 1914; the south-east $\frac{1}{4}$ of section 36 and the north-west $\frac{1}{4}$ of section 36 were acquired by purchase in 1910 and 1935 respectively. Through this exchange habitable buildings were obtained.			
T. Erickson, Redcliff .....	S.E. 6-16-6-4 (160 acres)	N.W. 5-14-6-4 (160 acres)	1028/41 23/7/41
This is Mr. Erickson's homestead for which he received patent in 1916 and through this exchange he has better land and also is nearer to a highway.			
M. E. Butts, Chinook .....	N. $\frac{1}{2}$ 10-31-7-4 (320 acres)	N. $\frac{1}{2}$ 27-28-7-4 (320 acres)	692/42 19/5/42
Mr. Butts purchased this land and obtained title in 1930 and through this exchange his children are now closer to school and also a town.			

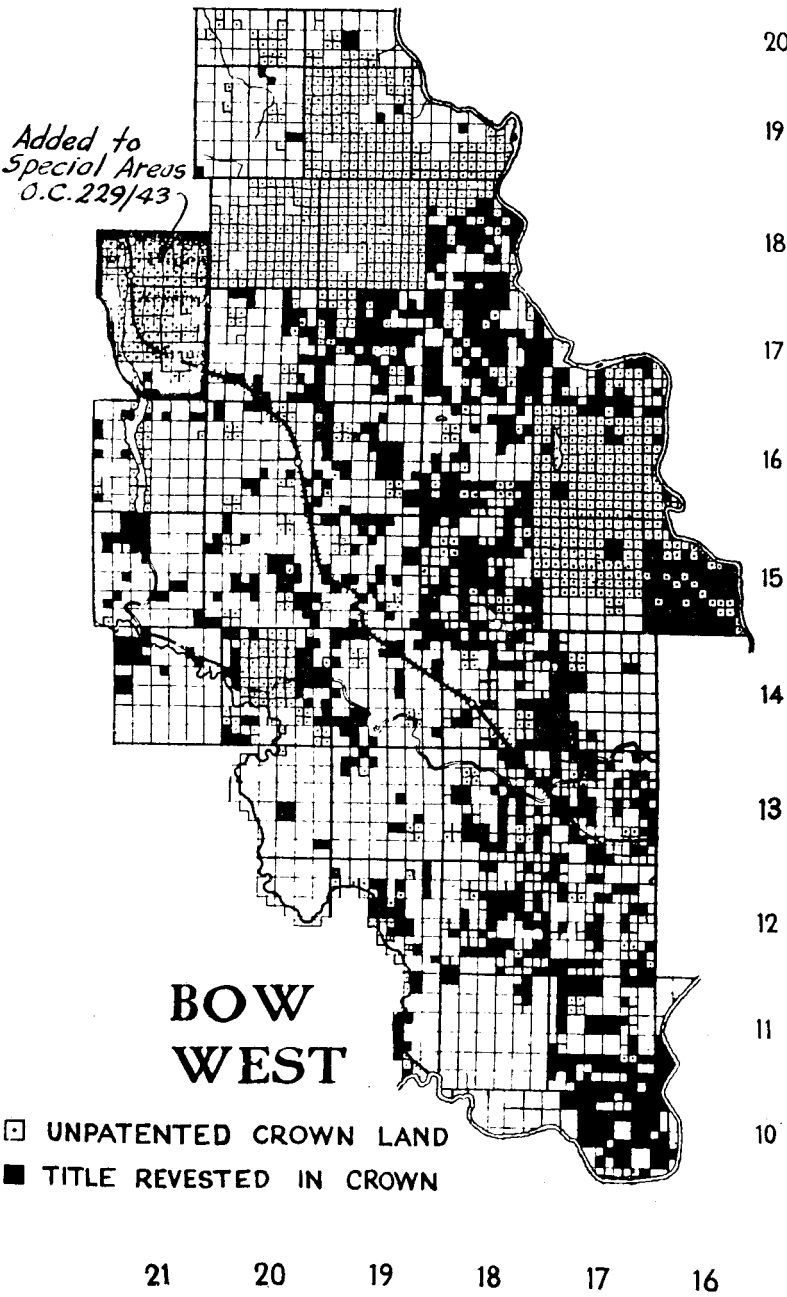
It is the endeavour of this Division to deal with all exchanges as expeditiously as possible, but many of the titles covering the settlers' lands are clouded with encumbrances and such encumbrances must be discharged in order that clear titles may issue in the name of the Crown, thus causing a certain amount of delay. Particularly is this so when the titles are subject to Dominion liens, which can only be discharged by Ottawa by making application through the Seed Grain Board in Edmonton. This procedure often takes months and at the present time there are at least six exchanges lying in the office waiting for the discharge of these Dominion Government liens.

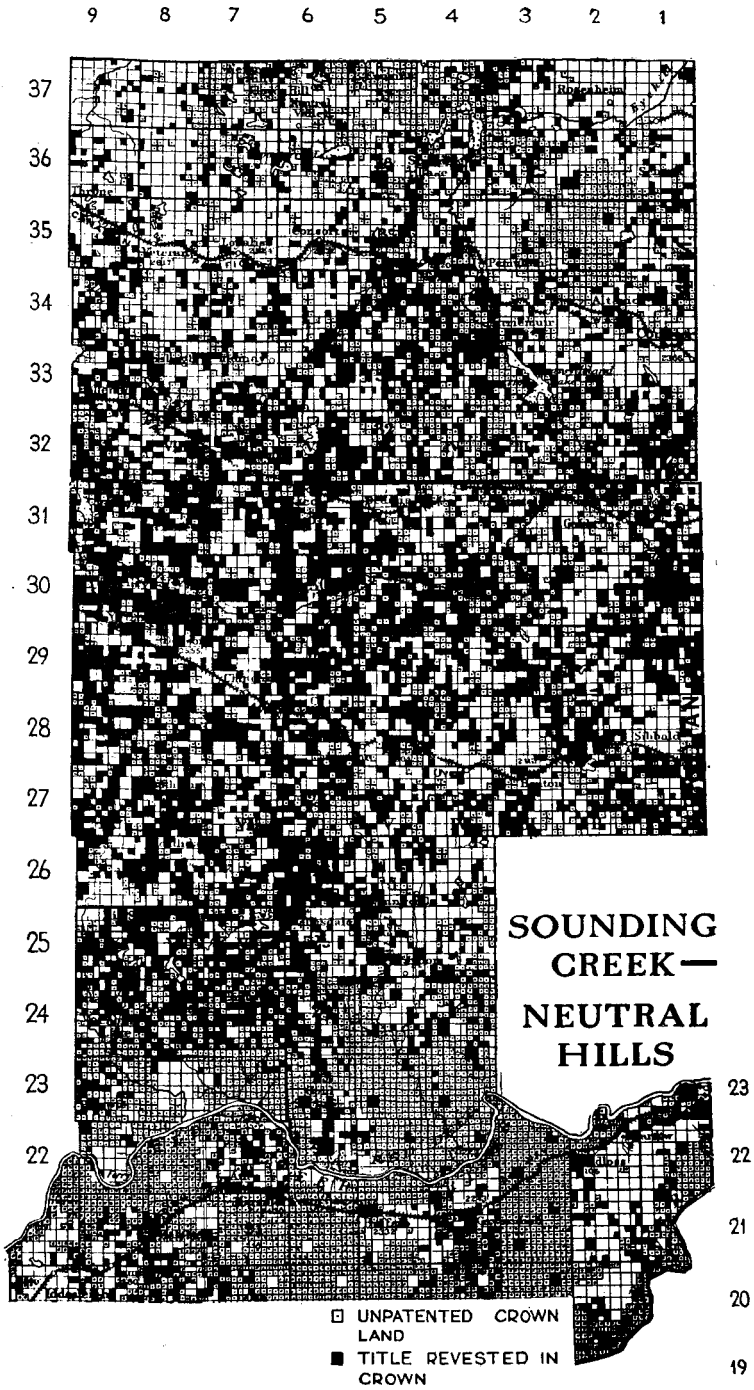
Speaking of exchanges, negotiations are proceeding with the Credit Foncier Franco-Canadian for an application on behalf of that Company and the Holland Canada Mortgage Company, Limited, to exchange some thousands of acres of land scattered through the Special Areas for one large consolidated block of lands. Preliminary stages only have been reached and many plans have been prepared, showing both these companies holdings, including the Vee Bar Vee Ranch and other ranches in the vicinity, in an endeavour to work out some scheme acceptable to all concerned. The block of lands that is desired by these companies lies to the south of the Red Deer River in townships 21 and 22, Ranges 8 and 9, west of the 4th meridian, and, as this year closes, this important exchange is still receiving the careful consideration of the Government.

*Government controlled Lands in the Special Areas.*—In order to get a bird's-eye picture of the government lands, i.e. unpatented Crown lands, tax recovery lands and revestment lands, maps are herewith submitted of the Sounding Creek-Neutral Hills Area, the Berry Creek-Sullivan Lake Area and the Bow West Area. In the first mentioned it will be seen that the Government controls by far the greater portion. Only in the north-west corner is private ownership to any degree predominant. Similarly, in the north-west corner of the Berry Creek-Sullivan Lake Area, private ownership is in evidence, but the balance of the area is pretty well under Government control. The picture in the Bow West is somewhat different where a large area south of the railway is still in private hands.









*Additions to Special Areas.*—On the 16th of February, 1943, there were two additional areas included within the boundaries of the Special Areas. By Order in Council, No. 229/43 the south half of township 18, range 21, west of the 4th meridian and that part of township 17, range 21, west of the 4th meridian lying east of the west boundary of MacGregor Lake were added to the Bow West Special Area, and by Order in Council, No. 230/43 dated the 16th day of February, 1943, all of townships 31, 32 and 33, in range 16, west of the 4th meridian were added to the Bow West Special Area.

*Roadways.*—There appears to be, due possibly to the war, a curtailment in the survey of road diversions, as shown by the number of plans of surveyed roadways that have been recorded in this Division, affecting available and alienated provincial Crown lands. The records show that seventy-one plans of roadways approved by the Director of Surveys of the Department of Public Works were recorded in this Division affecting a total of one hundred and eighty-nine parcels of land. Reservations for these roadways were entered in our records and in cases where lands were alienated by agreements for sale or lease, etc., assignments were obtained and compensation credited to the purchasers or lessees.

*Air Landing Fields.*—With the acceleration of aviation due to the war there has been a marked interest and demand for air landing fields throughout the province, not only on privately owned areas but also on provincial lands. Prior to the war, the records show that the following areas belonging to the Crown were put under reservation for aviation purposes:—

1. Grande Prairie.—Department of National Defence.  
On the 11th of June, 1929, by P.C. No. 978, the south-east quarter of section 29, township 71, range 6, west of the 6th meridian, was acquired by the Department of National Defence as an aeroplane landing field. This, of course, was previous to the transfer of the natural resources to the province.
2. Air Field at Fort Smith.—Department of the Interior.  
On the 1st of February, 1935, 200.50 acres, more or less, adjoining the Fort Smith Settlement were leased to the Department of the Interior at a nominal rental of \$1.00.
3. Peace River Airport.—On December 3, 1936, the Board of Trade of Peace River was granted the use of the north-west quarter of section 29, township 83, range 22, west of the 5th meridian as an air landing field, on the understanding that these rights would not be assigned to private interests. This particular quarter section, which is classified as school land, was withdrawn from the School Land Endowment and another quarter section, the south-west quarter of section 7, township 70, range 22, west of the 5th meridian, was selected and reserved for school land in lieu thereof. The status of this field is not quite clear and the latest information shows that the Board of Trade of Peace River passed a resolution and, by a letter to the Department on the 21st of December, 1936, requested that the Town Council take possession so that this field could be managed and run as a public airport.
4. Lac La Biche Air Landing Field.—An application was received from a group at Lac La Biche and in reply advice was given that the Municipality or Community would be granted land for an airport under certain conditions, but no further action was taken by the applicants.
5. Coleman.—Intermediate Air Landing Field.—Due to representations made by the Department of National Defence, an Order in Council, No. 1402/35 was passed reserving, during pleasure, for the purpose of an intermediate landing field, all that portion of the south-east quarter of section 11 and the easterly 1,600 feet of the south-west quarter of section 11, township 8, range 5, west of the 5th meridian, lying to the south of the right of way of the Crownsnest Branch of the Canadian Pacific Railway, containing 104.68 acres, more or less.

The above appears to cover all the activity regarding air landing fields on Crown lands previous to the war, but since the outbreak of hostilities the following information is submitted to show that there is a great demand for such fields in this province. In looking to the rapid advancement and development in aviation travel after the war, it does not need much imagination to show that Alberta will be dotted with numerous air landing fields of which Edmonton, our

capital city, already acknowledged as one of the main aviation cross-roads of international aviation travel, will be the geographical and commercial centre.

1. Air Landing Field at McMurray.—The Canadian Pacific Airlines are pioneering aviation and blazing trails which are radiating through this province. An application is under consideration to construct for aircraft two landing runways, 7,000 feet long and 750 feet wide, in the vicinity of the settlement of Fort McMurray, and which will affect the south-east quarter of section 29, the south half of section 28, the north-east quarter of section 20, and all of section 21, in township 88, range 8, west of the 4th meridian.
2. Embarass Portage.—Permission was given the Canadian Pacific Airlines to construct runways for an air landing field ten miles south of Embarass Portage on the right bank of the Athabaska River in township 106, range 9, west of the 4th meridian. The application claimed that this field was necessary for the Canadian Pacific Airlines to carry freight, supplies and personnel in connection with the development of the Fort Norman Oil Wells and the war project of a pipeline from this point to Whitehorse. The representative of the Canadian Pacific Airlines advises that this field appears to have been taken over completely by the Government of the United States of America, but no application has been received from this government although runways have been graded and are in use by its representatives.
3. High River.—Permission has been granted to the Chief Works Officer of No. 4 Training Command to enter upon the west half of section 30, township 18, range 27, west of the 4th meridian and the east half of section 25, township 18, range 28, west of the 4th meridian, for the purpose of using same as a temporary relief field. It is the obligation of this Command to advise when such use of these lands has been relinquished, so that the reservation may be deleted from our records.
4. Eagle Lake Air Firing Range.—All those portions of sections 28, 29, 30, 31, 32 and 33, in township 23, range 24, west of the 4th meridian, and that portion of section 5, township 24, range 24, west of the 4th meridian, covered by the waters of Eagle Lake, have been put under reservation for the Dominion Department of Transport.
5. R.C.A.F. Field at Whitla.—Representations have been made for the reservation of an outer marker and access thereto in section 13, township 12, range 8, west of the 4th meridian, in connection with the above airfield. An application is also on file in connection with this station for a portion of the south-west quarter of section 14 and the north-west quarter of section 11, township 12, range 8, west of the 4th meridian, adjoining the already established field at this location.
6. Air Field West of Redcliff.—An application has been received on behalf of the Department of Transport to reserve the north-west quarter of section 17, township 13, range 7, west of the 4th meridian, as a bombing area in connection with the balance of this section, which is held by private interests.
7. Wainwright.—The Department of Transport has made application to acquire for an air landing field the north-east quarter of section 29, and the east half of the north-west quarter of section 29, in township 44, range 6, west of the 4th meridian, north of the Canadian National Railways' right of way at Wainwright.

Reservations have been entered in the records affecting these lands subject, however, to the Department of Transport obtaining releases of a six year cultivation and grazing lease and a grazing permit affecting portions of the above described lands and the payment, if necessary, of any compensation as is thought necessary and equitable.

*Maps and Plans.*—Some years ago, at the request of the Minister, a start was made on a map of the province showing the general standing of the lands, so that a bird's-eye view may be obtained of their disposition in any section. This information is shown upon sectional sheet maps, which are mounted on linen and bound in two volumes. The scale of these maps is three miles to the inch, which will not of course permit of showing the disposition of the lands in the minutest detail but sufficiently so in order to indicate the following classifications:—

Patented lands (except small areas such as school sites, church sites, etc.),	Fur farm leases,
Homesteads,	Surface leases,
Pre-emptions,	Miscellaneous leases,
Soldier grants,	Vacant provincial lands,
Sales,	Licences of occupation,
Grazing leases,	Timber berths,
Agricultural leases,	Timber reservations,
Cultivation leases,	Bird sanctuaries,
Accrued area leases,	Forest reserves,
	Metis reserves.

The value of showing this information in map form has been realized on many different occasions even before the draughting was completed. Due to the depletion of the staff through enlistments hope of ever completing this map was almost abandoned and for some time it was not possible to make any progress whatsoever. Then came the advent of the lady draughtsmen. Without in any way minimizing the fine work of the men whose places they had taken, it must be admitted that the completion of this map was in a great measure due to the unlimited patience, constant application and tenacity of this new product of the war, the lady draughtsman. To this particular employee we wish to extend our appreciation, particularly so at a time when there is additional pressure upon all available help. Now that the map is completed, all documents coming under the above classifications are routed through to this map where new dispositions are placed upon it and cancellations and changes from one classification to another are shown thereon.

*Trap-Line Maps.*—Another new set of records has been completed, also upon mounted sectional sheet maps, showing all the trap-lines for which licences have been issued by the Fish and Game Branch. As soon as an application is received it is plotted upon the map in order to ascertain if it in any way conflicts with a previous licensed area. Through these records many disputes are averted, and a glance at the map will show the exact area covered by each trapper's licence.

*35 Mile Map of the Province.*—Our supply of this map is almost exhausted. It is now being revised and brought up to date, after which it is the intention to make arrangements with Ottawa to lithograph a new issue.

*Dominion Maps.*—This Division has at all times worked in close co-operation with the Hydrographic and Map Service Division at Ottawa, and from time to time when Dominion publications are being issued affecting the Alberta area, advance copies of the maps are sent to us in order that they may be checked over. Wherever necessary, corrections are made.

In some instances suggestions are also offered in order to make the map as complete as possible, particularly so with the national topographic series, which are in considerable demand and greatly used by aviators belonging to the armed forces, as well as by civilian corporations. Winter trails or wagon roads, forestry look-out towers or rangers' cabins with radio or telephone communications may mean to these aviators the saving of lives in a wrecked plane, and great care is exercised so that none of these essential land marks are omitted from the plans.

The following plans were checked and returned to Ottawa for publication:

McMurray .....	Sheet No. 74 S.W.,
Lac La Biche-Peter Pond .....	Sheet No. 73 N.W.,
Peace River .....	Sheet No. 84 S.W.

*Maps in General.*—From time to time new map publications are being added to our varied supply of maps, which has resulted in our now possessing the largest and most comprehensive stock of maps in the province. It is particularly gratifying to be able to continue serving not only the general public over the counter and to far away points through the mail, but, also, all the armed forces, including the American engineers and contractors, who have many times expressed their appreciation for this service and have remarked on the excellence of the maps. The greatest volume during the year has been disposed of over the counter, and 3,024 maps have been sent out by mail.

*Draughting.*—A considerable number of plans and sketches were made in connection with various applications to acquire the resources by purchase, lease or otherwise. Many large plans of the grazing areas of the province were draughted in order that adjustments could be made to ascertain boundaries to the best advantage of all concerned. The usual general draughting was taken care of for the different divisions, including plans showing the "radio set-up".

One of these plans shows in a very concise and interesting way the different types of forest radio communications. A base map of the province was used giving all the radio headquarter stations, look-out stations, mobile stations, portable stations, look-outs equipped with telephone and radio, rangers' stations, boundaries of the ranger districts and also the location of the telephone lines. In addition the power in kilocycles of each station was shown by means of different colours. This plan was especially prepared for the Royal Canadian Air Force for the purpose of assisting that organization in the spotting of planes.

*Photostat Machine.*—Even last year's record was exceeded in the amount of work that was turned out by this machine. Fifty-eight rolls of photostat paper were used this year in comparison with fifty-one during last year, making a total of 20,300 feet of photostat copies. This represents a great volume not only of plans but other material as well. Interesting items included a complete copy in duplicate of the evidence in the McGillivray Creek and Coal Company explosion in 1926, each copy consisting of four hundred and seven pages. A number of certified copies were made of the material and exhibits for the courts in the action of William Antony et al versus the Attorney General and the Minister of Lands and Mines. A great amount of photostat work was also done relative to other actions in the administration of the Department, and complete sets of timber regulations for the province and Dominion went through the machine. In addition to the above work and our own general departmental requirements, considerable work was done for other Government departments, which were briefly as follows:—

Applications for insurance were photostated on a reduced scale for the Alberta Government Insurance Office.

Copies of the lists showing the Pressure Vessel Registration paid for the Mechanical Branch of the Department of Public Works.

Photostat prints on a large scale of the enlarged municipal districts for the Department of Municipal Affairs.

Miscellaneous photostats for the Publicity Bureau, Department of Trade and Industry.

In accordance with our policy, assistance was rendered in certain cases to the Armed Forces, particularly to the No. 4 Initial Training School.

*Recordak Machine.*—A real start was made during the year with this machine whereby records are preserved on films. A large number of old township registers received from Ottawa had been stored in the basement. These registers, whilst containing a great deal of valuable information, occupied a large amount of space. Most of these have been photographed, recorded on film, indexed and stored away for safe keeping in a space a mere fraction of the area that was occupied by the old records. At the close of the year the Recordak machine was photographing files belonging to the Mining Lands Division. As time goes by all old files will be recordaked and preserved on film, thus affording relief from the congestion of storing thousands of files which accumulate from year to year.

*Mimeograph Machine.*—A total of 381 stencils were cut this year and 196,944 copies were run off. This work included four hundred copies of the thirty-four page report by Mr. Justice A. F. Ewing, Commissioner, covering the disaster which occurred at the mine of the Brazeau Collieries, Limited, at Nordegg, Alberta.

*Mineral Taxation.*—Reference was made last year to the fact that the Mineral Taxation Act, 1941, had been placed in this Division for administration. Since the passing of this Act, which provides a good foundation for mineral taxation, it is apparent from the experience of the last two years that many revisions are

needed, which it is hoped will be taken care of at the forthcoming session. The Act provides for the collection of taxes in producing and non-producing areas. At the present time only one producing area is established at Turner Valley.

The Act seems adequate as far as this area is concerned and others which, from time to time, may be designated by ministerial order as producing, but the main weakness in the Act is the provision in Section 15 wherein every owner of minerals shall deliver to the Minister a statement of the parcels in respect of which he is taxable under the Act, and shall pay before a certain date the taxes due by him. No assessment notices are sent out as in cases of the producing area, the section placing the responsibility squarely upon the owner to send in the tax without any assessment or notification whatsoever from this Department. It is true that advertisements have appeared in the leading newspapers of the province, but it is nevertheless apparent that there are a large number of mineral owners who have no knowledge of the existence of this Act. The Department, unfortunately, has not a record of all the mineral owners, and until the Land Titles Office records are searched and this information extracted and compiled it is not possible to effectively and efficiently collect the taxes. To search all the Land Titles Office records to obtain this information is indeed no small task, but it is respectfully contended that for the proper administration of any Mineral Taxation Act and the collection of mineral taxes, complete records should be obtained of all mineral owners, similar to the records of surface rights that are maintained by all taxing authorities.

For the fiscal year ending 1942, \$75,120.93, and for the fiscal year ending 1943, \$94,364.68 were collected under this Act.



## Accounting Division

### REPORT OF THE ACTING ACCOUNTANT, E. R. EDWARDS

During the year ending March 31st, 1943, there was a surplus of \$1,946,210.59 on income account, an increase of \$200,280.77 over the previous year. The total cash received from all sources during this fiscal year was \$3,920,989.65 as shown in Statement "A".

The main increases in revenue were shown by the Mining Lands Branch, \$142,693.43, the Timber Branch, \$41,993.30, and the Special Areas Branch, \$29,359.93. A decrease, however, was recorded by the School Lands Branch of \$56,444.77, due to a drop in petroleum and natural gas royalties of \$33,933.36, and timber permits, fees, dues, etc., of \$17,425.71. An examination of statement "H" will show the details of increases and decreases in all branches. It will be noted from Statement "B" that the net revenue on Income Account for the year was \$2,753,159.00, an increase of \$159,673.86.

The total expenditure on income account amounted to \$806,948.41, a decrease of \$40,606.91. This was due to the sharp fall of \$124,752.43 in fire-fighting expenses which was partly offset by a general increase in salary schedules together with added employment for forest rangers amounting to \$64,496.16, and to an increase of \$15,730.50 for radio protection service.

Combined collections from Special Areas and Special Districts amounted to \$543,062.32. Tax collections declined \$50,404.17 and Agricultural Relief Advance collections, \$30,822.98. This was partially offset by the previously mentioned increase in Special Areas collections of \$29,359.93, leaving a net decrease of \$50,948.14. The combined expenditures for this year's operations were \$306,731.81 and were all paid from funds in the Special Areas and Special Districts Trust Accounts. Details will be found in statements "E", "F", and "G".

Space does not permit a detailed summary of the work performed by this Division, nor are records available to show the vast number of files handled or the large volume of accounting information supplied to the various branches of the Department. The following items, however, will give some indication of the volume of certain portions of the work performed during the year under review.

Over 52,000 individual receipts, issued by various offices of the Department, were audited and analysed for revenue classification. Of this number, 25,826 were issued and mailed by the Accounts Division.

There were 3,120 new accounts opened, 200 School Lands Sales accounts re-instated and 4,063 accounts cancelled, bringing the total of active accounts as at March 31st, 1943 to 39,699.

Over 100,000 entries were posted on the bookkeeping machines to the various accounts concerned, calculations were made and billing or tax notices mailed for 28,000 accounts, and 3,700 refund requisitions were examined, approved and the necessary cheques issued.

The head office cashiers recorded over 37,500 individual cash items, posted over 37,000 official receipts, issued 950 interim receipts, and sent out 3,000 cheques for certification.

It should be emphasized that the above information is presented only as an indication of the great number of entries which were made due to the enormous increase in volume of cash receipts being handled.

## INDEX TO STATEMENTS

- A.—Statement of Receipts from All Sources.
- B.—Statement of Receipts Income Account.
- C.—Statement of Receipts Capital Account.
- D.—Statement of Receipts and Disposition of Agricultural Advances.
- E.—Special Areas Trust Account Statement of Receipts and Payments.
- F.—Special Districts Trust Account Statement of Receipts and Payments.
- G.—Statement of Receipts, Special Area and Special District.
- H.—Statement of Receipts, by Branches.
- I.—Statement of Receipts, School Lands Branch.
- J.—Alberta School Lands Trust Fund Balance Sheet.
- K.—Alberta School Lands Sales Revenue Account.
- L.—Composite Statement of Income from Alberta School Lands Sales.
- M.—Statement of Collections on Tax Recovery Lands.

## STATEMENT A.

## STATEMENT OF RECEIPTS FROM ALL SOURCES

From April 1, 1942 to March 31, 1943

	Gross Receipts	Refunds	Net Revenue
Income Account .....	\$2,808,600.27	\$ 55,708.01	\$2,752,892.26
Capital Account .....	11,160.94	60.00	11,100.94
Reimbursement of previous year's expenditures .....	200.00		200.00
School Lands Trust Fund .....	145,668.95	327.24	145,341.71
Special Areas and Special Districts .....	550,429.31	7,366.99	543,062.32
Unapplied receipts .....	301,710.97	199,442.45	102,268.52
Tax Recovery .....	74,401.53	223.63	74,177.90
Improvements .....	3,835.26	1,504.11	2,331.15
Land patents cultivation crop shares .....	1,944.24		1,944.24
School lands cultivation crop shares .....	17,332.52		17,332.52
Grazing permits, fees, rentals, etc. ....	5,705.66		5,705.66
	<u>\$3,920,989.65</u>	<u>\$264,632.43</u>	<u>\$3,656,357.22</u>

## STATEMENT B.

## STATEMENT OF RECEIPTS—INCOME ACCOUNT

From April 1, 1942 to March 31, 1943

INCOME ACCOUNT:	Gross Receipts	Refunds	Net Revenue
Fisheries:			
Casual .....	\$ 1,294.05	\$ 16.66	\$ 1,277.39
Fishing licences .....	9,261.00	25.00	9,236.00
Angling permits .....	12,775.73	1,333.63	11,442.10
Boat licences .....	20.00		20.00
Game Branch:			
Casual .....	1,005.40		1,005.40
Game licences .....	67,071.63	4,761.39	62,310.24
Trap line permits .....	10,097.40		10,097.40
Fur tax .....	84,453.73	3,268.46	81,185.27
Sale of fur .....	2,682.68		2,682.68
Lands and Grazing Branch:			
Casual .....	12,817.61	75.90	12,741.71
Grazing permits, fees, dues, etc. ....	137,849.34	12,389.09	125,460.25
Hay permits, fees, dues, etc. ....	5,508.15	567.46	4,940.69
Agricultural fees, rentals, etc. ....	1,144.10	215.00	929.10
Improvement collection fees .....	755.62	15.00	740.62
General sales interest .....	2,456.72		2,456.72
Cultivation permits, fees, rentals, etc. ....	12,887.14	2,588.03	10,299.11
Surface rentals .....	4,010.98	202.27	3,808.71
Timber Branch:			
Casual .....	8,097.13	2.00	8,095.13
Timber fees, dues, rentals, etc. ....	771,072.37	4,994.80	766,077.57
Mining Lands Branch:			
Casual .....	53,613.65	1,192.35	52,421.30
Coal fees, rentals, etc. ....	80,147.23	405.00	79,742.23
Coal royalties .....	235,628.24	15.05	235,613.19
Coal Mines Act sundry revenue .....	4,609.62	54.00	4,555.62
Petroleum and natural gas fees, rentals, etc. ....	271,551.63	3,939.16	267,612.47
Petroleum and natural gas royalties .....	575,833.12		575,833.12
Mineral Tax .....	94,430.18	65.50	94,364.68
School Lands Branch:			
Interest on sales .....	86,241.60	296.53	85,945.07
Miscellaneous .....	244,833.02	19,165.99	225,667.03
Miscellaneous:			
Casual .....	11,846.76	74.16	11,772.60
Services and supplies .....	3,067.37	25.58	3,041.79
Reimbursement of salaries and expenses .....	901.07		901.07
Tax recovery office fees .....	636.00	20.00	616.00
Total (carried to Statement A) .....	\$2,808,600.27	\$ 55,708.01	\$2,752,892.26
Special Districts (carried to Statement D):			
1936 seed grain interest .....	102.21		102.21
1939 agricultural advances interest .....	29.19		29.19
1937-38 feed and fodder interest .....	93.57		93.57
1938-39 feed and fodder interest .....	41.77		41.77
TOTAL INCOME ACCOUNT .....	\$2,808,867.01	\$ 55,708.01	\$2,753,159.00

## STATEMENT C.

## STATEMENT OF RECEIPTS—CAPITAL ACCOUNT

From April 1, 1942 to March 31, 1943

	Gross Receipts	Refunds	Net Revenue
Land sales principal .....	\$ 11,160.94	\$ 60.00	\$ 11,100.94

## STATEMENT D.

## STATEMENT OF RECEIPTS AND DISPOSITION OF AGRICULTURAL ADVANCES

From April 1, 1942 to March 31, 1943

Receipts:					
Gross receipts .....					\$ 5,012.78
Refunds .....					
Net to Statement G .....					\$ 5,012.78
Disposition:	Principal	Interest			
1937 seed grain .....	\$ 892.64	\$ 286.74	To Provincial Treasurer		
1936 seed grain .....	226.95	102.21	To Provincial Treasurer		
1939 agricultural advances .....	136.60	29.19	To Provincial Treasurer		
1937-38 feed and fodder .....	433.16	93.57	To Provincial Treasurer		
1938-39 feed and fodder .....	272.69	41.77	To Provincial Treasurer		
1938 agricultural advances .....	2,063.98	433.28	To be forwarded to Provincial Treasurer		
	\$ 4,026.02	\$ 986.76			
				\$ 4,026.02	
				986.76	
				\$ 5,012.78	

STATEMENT OF RECEIPTS AND PAYMENTS  
SPECIAL AREAS TRUST ACCOUNT

STATEMENT E.

For the Year Ended March 31, 1943

Cash in bank, March 31, 1942 .....		\$ 131,953.76
Receipts:		
Grazing rentals .....	\$ 69,796.81	
Cultivation rentals .....	56,250.06	
Sale of buildings .....	13,307.45	
Bank interest .....	1,762.27	
Equipment rentals—1942 .....	19,036.81	
Province of Alberta, equipment grant .....	10,000.00	
Reimbursement of Special District items charged to Special Areas Trust during the year ending March 31, 1942 .....	687.24	
Miscellaneous .....	3,030.12	
		<u>173,870.76</u>
		\$ 305,824.52
Payments:		
Purchase of equipment .....	\$ 10,122.13	
Equipment maintenance .....	14,391.92	
Community pastures .....	8,834.06	
Purchase of accounting machines .....	3,984.61	
Special Districts items charged to Special Areas Trust Account .....	1,478.80	
Grass seed .....	801.00	
Miscellaneous .....	924.65	
		<u>40,537.17</u>
Cash in bank, March 31, 1943 .....		\$ 265,287.35

STATEMENT OF RECEIPTS AND PAYMENTS  
SPECIAL DISTRICTS TRUST ACCOUNT

STATEMENT F.

For the Year Ended March 31, 1943

Cash in bank, March 31, 1942 .....		\$ 164,003.21
Receipts:		
General tax collections .....	\$ 319,715.64	
Bank interest .....	595.67	
Reimbursement of Special Areas items charged to Special Districts Trust during the year ending March 31, 1942 .....	442.20	
Miscellaneous .....	3,901.64	
		<u>324,655.15</u>
		\$ 488,658.36
Payments:		
School requisitions—1942 .....	\$ 143,967.48	
School requisitions—1943 .....	4,920.96	
Hospital requisitions—1942 .....	19,298.82	
Hospital requisitions (arrears) .....	25,000.00	
Maintenance of roads .....	36,507.38	
Blind pensions—1941 .....	109.18	
Blind pensions—1942 .....	145.68	
Direct relief .....	660.92	
Hospital medical and indigent relief .....	1,762.04	
Isolation hospital costs .....	15.97	
Mothers' Allowances .....	4,864.99	
Old age pensions—1940 .....	92.00	
Old age pensions—1941 .....	7,791.53	
Old age pensions—1942 .....	7,619.27	
Provincial Mental Hospital .....	930.00	
Provincial Training School .....	495.00	
Land Titles office fees .....	2,827.50	
Pests and weeds .....	1,051.00	
Maintenance of offices .....	880.59	
Liquidation of debentures of former School Districts in Special Areas .....	3,377.33	
Special Areas items charged to Special Districts Trust Account .....	2,876.55	
Miscellaneous .....	1,000.45	
		<u>266,194.64</u>
Cash in bank, March 31, 1943 .....		\$ 222,463.72

STATEMENT OF RECEIPTS  
SPECIAL AREAS AND SPECIAL DISTRICTS  
From April 1, 1942 to March 31, 1943

## STATEMENT G.

	Gross Receipts	Refunds	Net Revenue
<b>TAXES:</b>			
General Tax—Statement F .....	\$325,448.19	\$ 5,732.55	\$319,715.64
Social Service Tax .....	45,235.28	19.23	45,216.05
Reporting School Tax .....	4,682.37		4,682.37
Refunded to School Districts .....	\$ 4,448.19		
5% commission to Special Districts Trust Account .....	234.19		
Total collections .....	\$ 4,682.37		
Hail Tax .....	7,975.23		7,975.23
Refunded to Hail Board .....	\$ 7,576.47		
5% commission to Special Districts Trust Account .....	398.76		
Total collections .....	\$ 7,975.23		
<b>TOTAL TAX COLLECTIONS .....</b>	<b>\$383,341.07</b>	<b>\$ 5,751.78</b>	<b>\$377,589.29</b>
Special Districts bank interest, Statement F .....	595.67		595.67
Special Districts, miscellaneous, Statement F .....	3,268.69		3,268.69
Statement F .....	\$ 3,901.64		
Less: Reporting schools commissions .....	234.19		
Less: Hail tax commissions .....	398.76		
.....	\$ 3,268.69		
Special Areas Trust Receipts .....	145,761.92	1,615.21	144,146.71
Statement E .....	\$173,870.76		
Less: Equipment rentals 1942 .....	19,036.81		
Less: Province of Alberta Equipment Grant .....	10,000.00		
Less: Recoverable advances .....	687.24		
.....	\$144,146.71		
Agricultural Advances, Statement D .....	5,012.78		5,012.78
1938 agricultural advances, forwarded from previous year .....	12,393.68		12,393.68
Collections for Department of Agriculture:			
Horse vaccine .....	33.00		33.00
Bran and sawdust .....	22.50		22.50
.....	\$550,429.31	\$ 7,366.99	\$543,062.32

STATEMENT OF RECEIPTS BY BRANCHES  
For Fiscal Years Ending March 31, 1942 and March 31, 1943

## STATEMENT H.

	Fiscal year ending March 31, 1942	Fiscal year ending March 31, 1943
<b>INCOME ACCOUNT:</b>		
Fisheries Branch .....	\$ 22,298.59	\$ 21,975.49
Game Branch .....	161,122.17	157,280.99
Lands and Grazing Branch .....	145,981.43	161,376.91
Timber Branch .....	732,179.40	774,172.70
Mining Lands Branch .....	1,073,084.50	1,215,777.93
Mineral Tax .....	75,120.93	94,364.68
School Lands Branch .....	368,056.87	311,612.10
Miscellaneous .....	15,066.17	16,331.46
<b>CAPITAL ACCOUNT:</b>		
Land sales principal .....	10,416.91	11,100.94
<b>TRANSFERRED TO OTHER DEPARTMENTS .....</b>	<b>7.36</b>	<b>200.00</b>
<b>SCHOOL LANDS TRUST FUND .....</b>	<b>127,874.26</b>	<b>145,341.71</b>
<b>SPECIAL AREAS AND SPECIAL DISTRICTS:</b>		
Taxes .....	427,993.46	377,589.29
Funds transferred from Municipal Districts bank accounts .....	8,155.47	
Special Districts bank interest .....	530.30	595.67
Special Districts miscellaneous .....	6,616.09	3,268.69
Special Areas receipts .....	114,786.78	144,146.71
Agricultural advances .....	35,835.76	5,012.78
1938 agricultural advances forward from previous year .....		12,393.68
Horse vaccine .....	71.00	33.00
Bran and sawdust .....	21.60	22.50
<b>UNAPPLIED RECEIPTS CARRIED FORWARD:</b>		
Suspense .....	129,304.20	176,446.42
Improvements .....	2,215.67	2,331.15
Land patents cultivation crop share .....	754.02	1,944.24
School lands cultivation crop share .....	6,767.34	17,332.52
Grazing permits, fees, rentals, etc. ....	4,181.14	5,705.66
.....	\$3,468,441.42	\$3,656,357.22

## DEPARTMENT OF LANDS AND MINES

## STATEMENT I.

STATEMENT OF RECEIPTS SCHOOL LANDS BRANCH April 1, 1942 to March 31, 1943			
	Receipts	Refunds	Net Revenue
INCOME ACCOUNT:			
Sales: interest .....	\$ 86,241.60	\$ 296.53	\$ 85,945.07
Grazing fees, rentals, etc. ....	18,299.83	48.79	18,251.04
Hay fees, dues, etc. ....	743.95	98.50	645.45
Cultivation fees, rentals, etc. ....	74,416.55	18,474.59	55,941.96
Surface rights .....	355.49		355.49
Miscellaneous leases .....	461.49		461.49
Timber permits, fees, dues, etc. ....	41,510.33	489.91	41,020.42
Coal fees, rentals, etc. ....	4,288.14		4,288.14
Coal royalty .....	24,700.43		24,700.43
Petroleum and natural gas fees, rentals, etc. ....	24,074.36	9.20	24,065.16
Petroleum and natural gas royalties .....	54,360.45		54,360.45
Miscellaneous .....	1,622.00	45.00	1,577.00
	<u>\$ 331,074.62</u>	<u>\$ 19,462.52</u>	<u>\$ 311,612.10</u>
TRUST ACCOUNT:			
School lands sales principal .....	145,668.95	327.24	145,341.71
	<u>\$ 476,743.57</u>	<u>\$ 19,789.76</u>	<u>\$ 456,953.81</u>

## STATEMENT J.

ALBERTA SCHOOL LANDS TRUST FUND  
BALANCE SHEET—MARCH 31, 1943

ASSETS		
Cash in bank and on hand .....		\$ 40,089.04
Investments:		
Dominion of Canada debentures .....	\$10,480,175.03	
Accrued interest .....	267.53	
		<u>10,480,442.56</u>
Accounts receivable:		
Undue principal .....	609,626.74	
Arrears principal .....	767,198.78	
		<u>1,376,825.52</u>
Due by Provincial Treasurer re adjustments .....		49.87
		<u>\$11,897,406.99</u>
LIABILITIES		
Alberta School Lands Trust Fund .....		<u>\$11,897,406.99</u>

## STATEMENT K.

ALBERTA SCHOOL LANDS SALES  
REVENUE ACCOUNT

April 1, 1942 to March 31, 1943			
Arrears interest as at March 31, 1942 .....	\$ 418,495.00		
Interest charges .....	343,643.86		
Interest on reinstated accounts .....	200,762.27		
Interest revenue .....		\$ 85,945.07	
Interest on cancelled sales written off .....		77,256.22	
Amounts transferred from cultivation leases held on reinstated sales ..		67,366.65	
Interest reductions granted by School Lands Board .....		383,675.54	
Arrears interest as at March 31, 1943 .....		348,657.65	
	<u>\$ 962,901.13</u>	<u>\$ 962,901.13</u>	

## STATEMENT L.

ALBERTA SCHOOL LANDS  
STATEMENT OF NET RECEIPTS AND ADMINISTRATION CHARGES  
ALSO INCOME PAID TO THE PROVINCE FROM SEPTEMBER 1, 1905 TO MARCH 31, 1943

	REVENUE RECEIPTS					Total Management Charges	Net Revenue	Interest on Fund	Total Income Paid to Province
	Principal on Sales Cr. to School Lands Trust Funds	Interest on Sales	Miscellaneous Revenue	Total Revenue Received					
Prior to Sept. 1, 1905	\$ 44,758.58								
1905-06	170,948.16	\$ 249.29	\$ 8,237.18	\$ 8,486.47	\$ 10,090.41			\$ 3,008.44	\$ 3,008.44
1906-07	83,266.66	47,373.75	9,383.26	56,757.01	4,908.19			8,615.56	58,851.44
1907-08	70,790.03	35,881.70	15,977.04	51,858.74	8,224.81			7,776.61	51,410.54
1908-09	82,359.96	45,941.50	15,138.94	61,080.44	6,840.60			12,790.09	67,029.93
1909-10	401,495.74	55,726.21	35,408.41	91,134.62	12,667.92			78,466.70	98,881.86
1910-11	438,395.79	110,370.52	33,310.80	143,681.32	12,374.65			34,749.52	166,056.19
1911-12	478,388.71	161,780.72	32,859.86	173,681.32	11,159.66			50,797.04	236,046.80
1912-13	318,505.57	130,519.23	43,356.48	173,875.73	11,183.89			60,896.23	223,612.30
1913-14	273,429.52	105,934.34	55,543.60	161,477.94	12,325.40			69,414.50	219,708.55
1914-15	158,258.08	64,298.94	130,504.27	194,803.21	12,325.40			76,435.88	258,913.69
1915-16	110,162.73	58,663.74	43,417.84	102,101.58	11,029.13			86,550.43	169,226.73
1916-17	468,442.48	132,898.38	45,555.20	178,453.58	16,239.05			248,764.96	461,878.92
1917-18	731,207.52	228,213.40	85,938.44	311,151.84	16,898.03			167,625.11	461,878.92
1918-19	927,628.90	297,976.38	76,840.71	374,817.09	25,124.71			210,093.85	559,786.23
1919-20	573,131.11	291,479.93	153,219.76	444,699.69	26,245.71			244,559.75	663,013.73
1920-21	827,956.84	222,229.46	154,536.93	376,766.39	38,504.76			281,564.21	619,825.84
1921-22	311,905.56	184,159.90	106,623.07	290,782.97	32,633.36			317,239.50	573,389.11
1922-23	175,292.64	135,491.55	83,462.92	218,954.47	32,601.57			329,300.48	515,653.38
1923-24	234,835.94	161,703.16	112,268.17	273,971.33	30,847.06			339,692.46	582,816.73
1924-25	290,192.78	180,348.22	83,778.64	264,126.86	32,134.36			354,051.86	586,044.36
1925-26	318,102.28	243,423.62	120,195.52	363,619.14	26,012.57			369,009.79	706,616.36
1926-27	277,362.57	170,221.36	113,064.11	283,285.47	25,555.80			384,910.51	689,178.92
1927-28	511,807.46	212,817.04	114,069.33	326,886.37	38,563.64			400,856.19	755,215.32
1928-29	845,890.67	264,547.38	100,796.15	365,343.53	50,030.78			439,902.57	871,158.79
1929-30	376,286.40	272,012.74	163,915.17	435,927.91	37,086.69			472,317.57	871,158.79
April 1 to Oct. 30, 1930	63,746.52	32,544.91	47,706.61	80,251.52	12,825.67			242,656.26	310,082.11
Total receipts and disbursements while under Dominion Administration	\$ 9,564,569.20	\$ 3,846,827.40	\$ 1,982,108.41	\$ 5,828,935.81	\$ 553,508.25			\$ 5,063,383.85	\$10,338,811.41
1931-32	33,406.73	40,983.63	38,479.33	79,463.96				237,500.00	316,962.96
1932-33	43,947.83	58,851.60	60,863.51	119,715.11	25,000.00			357,864.23	452,579.34
1933-34	40,035.81	162,826.68	52,301.13	213,327.81	40,000.00			482,393.77	657,721.58
1934-35	56,136.23	190,759.77	77,811.94	278,571.71	40,000.00			483,952.73	612,524.44
1935-36	80,129.68	174,281.78	147,281.78	327,787.36	40,000.00			486,492.26	774,279.62
1936-37	76,867.12	180,305.58	124,596.74	301,587.19	40,000.00			489,289.15	640,876.34
1937-38	55,779.89	66,239.82	227,523.66	293,763.48	40,000.00			444,476.18	698,239.66
1938-39	48,442.09	41,751.06	192,276.55	234,027.61	40,000.00			398,824.14	592,851.75
1939-40	86,355.82	58,129.04	300,068.07	338,197.11	40,000.00			401,115.57	719,312.68
1940-41	83,664.73	75,331.78	296,294.81	371,626.59	40,000.00			406,969.99	733,477.80
1941-42	76,957.88	70,406.67	267,371.14	337,777.81	40,000.00			407,683.94	735,740.81
1942-43	127,874.26	98,872.84	269,184.03	368,056.87	40,000.00			412,273.56	683,885.66
1943-44	145,341.71	85,945.07	225,667.03	311,612.10	40,000.00				
Total	\$10,519,509.00	\$ 4,944,621.39	\$ 4,261,828.13	\$ 9,206,449.52	\$ 1,018,508.25			\$10,474,070.01	\$18,662,011.28

## DEPARTMENT OF LANDS AND MINES

## STATEMENT M.

## STATEMENT OF COLLECTIONS ON TAX RECOVERY LANDS

April 1, 1942 to March 31, 1943

Grazing permits .....	\$ 2,217.68
Grazing rentals .....	4,317.05
Sales principal .....	1,254.16
Sales interest .....	1,376.24
Cultivation permits .....	120.50
Cultivation bonus .....	50.00
Cultivation rentals .....	1,431.88
Wheat acreage bonus .....	1,613.38
Cultivation crop shares .....	7,554.51
Mineral surface rentals .....	33.03
Miscellaneous leases .....	67.82
Miscellaneous use permits .....	5.00
Miscellaneous sale of improvements .....	282.00
Sundry revenue .....	67.87
	<hr/>
Tax recovery office fees .....	\$ 20,391.12
	616.00
	<hr/>
	\$ 21,007.12



## Special Areas Administration

REPORT OF SPECIAL AREAS BOARD, A. C. McCULLY, *Chairman*

During the fiscal year ending March 31st, 1943, the following business was transacted:—1,445 provincial lands grazing permits, covering 715,300 acres; 499 school lands grazing permits, covering 183,608 acres; 854 provincial lands cultivation permits, covering 168,497 acres of broken and 71,334 acres of unbroken land and 111 hay permits, giving authority to cut 1,116 tons of hay. Revenue derived from these sources may be found elsewhere in this report in the Statement of Receipts, Special Areas Trust Account.

Owing to the resignation of one member of the Board, in addition to the prevailing shortage of help, the preparation of long term leases was somewhat curtailed. In spite of this problem, however, 263 applications for grazing leases were prepared and forwarded to the Department with the Board's recommendation, together with 257 applications for six and twenty year cultivation leases, making a total to date of 580 grazing and 369 cultivation leases.

Special mention should be given of the 20 year cultivation lease which is being issued under authority of Order in Council, No. 890-41. This, it is believed, is a new type of lease in as much as it is only granted to applicants who were, previous to the title being taken by the province, the owners of the land and is in reality merely a different method of tenure. Briefly it is a 20 year renewable lease which allows the lessee to retain ownership of all improvements, pay a yearly rental of 2 cents per acre for the unbroken portions and an eighth share of all crops harvested, unless the average yield is less than five bushels per acre. This lease, especially in the districts where the rainfall is more or less an uncertain factor, is preferable to title. It provides more security for a home, as neither liens nor judgments can ever be registered against it. It is meeting with a great deal of approval as evidenced by the numbers of applications received and the universal interest and requests for information with respect to its operation, which emanate not only from the Special Areas, but also from residents of all parts of the province.

Under the policy of exchanging privately owned lands for more desirable public lands, 28 applications were dealt with; of this number 15 were recommended and 13 refused.

The grass seed crop was light due to the unusually dry Spring in 1942. Abundant rains during June and July gave a good grain crop, but the earlier maturing grass seed requires moisture during April and May, with the result that yields in public lands were not worth harvesting. During the year 12,300 lbs. of clean crested wheat grass seed were harvested at an average cost of 3.72 cents per pound; 1,328 lbs. were received as crop share and returned on seed loaned, 2,800 lbs. purchased at .4c per pound and 5,890 lbs. were received from the Lethbridge Experimental Station under their policy to establish seed plots and to control Say's Grain Bug. This total of 22,318 lbs., together with the 1941 carryover of 13,712 lbs., makes a total of 36,030 lbs. Of this amount, 22,874 lbs. were distributed to 92 resident farmers leaving in storage 13,156 lbs. No Brome Grass seed was harvested or purchased in 1942. A total of 7,590 lbs. was carried over, of which 4,585 lbs. were distributed to 26 farmers. Total grass seed distributed to 118 resident farmers and ranchers for re-grassing public lands was 27,459 lbs., or sufficient to re-grass approximately 5,000 acres.

Applications for assistance under the Prairie Farm Rehabilitation Acts, regarding the construction of 55 dams and dugouts for stock watering purposes, and 6 domestic irrigation schemes were given the approval of the Special Areas Board.

During the last week in October, 1941, a meeting was held in the office of the Minister of Lands and Mines. Present at this meeting were Dr. Archibald, Dr. Fairfield, Mr. A. E. Palmer of the Dominion Department of Agriculture, the Minister, Hon. N. E. Tanner, Deputy Minister, Mr. J. Harvie and members of the Special Areas Board.

This meeting was called at the request of Dr. Archibald for the purpose of arriving at a better understanding of the efforts of both Governments to rehabilitate the drought areas of Alberta. A splendid spirit of co-operation was expressed by both Departments. It was arranged that Dr. Fairfield and his staff would meet with the Special Areas Board and work out all matters of detail.

On January 21st, 1942, a meeting was held in Hanna at which a report was submitted by Mr. A. B. Cook, P.F.R.A. engineer. Mr. Cook outlined a new irrigation project in connection with the Bartman Dam, which, in his estimation, was much more feasible than the original one. The new project necessitated the building of a new spillway in the east end of the dam and twelve miles of main ditch to deliver the water on some 1,500 acres south of the dam. Cost sheets were submitted which gave an estimated total cost of \$13,242.90. It was agreed at the Hanna meeting that this project should be completed as outlined, the costs being divided equally between the Department of Lands and Mines and the P.F.R.A., the Special Areas being responsible for the construction of the main and lateral canals.

Work was commenced on October 26th and approximately three miles of the main ditch was completed, but owing to the early freeze-up it had to be discontinued. It is intended to complete this, if possible, in 1943 and prepare at least 100 acres for irrigation as a demonstration plot. Disposition of the balance of the irrigable lands will be given later consideration.

Ducks Unlimited completed projects in the following locations:—Township 34, range 12; a dam creating a reservoir of 70 acre-feet capacity, township 34, range 11, a reservoir of 350 acre-feet. A permanent water supply is now assured in each of these districts.

A new community pasture was set up in the Sounding Creek District comprising some 43,820 acres. Five community pastures are now operated, making some 249,260 acres of pasture land available to residents who, owing to their location, are unable to secure sufficient grazing lands adjacent to their home holdings. A total of 4,308 head of stock was pastured during the season.

Co-operating with the officials of the Wheat Acreage Reduction Act, a total of 2,565 applications and 2,570 statements of claim was taken by members of the Board's staff in the various offices.

The season of 1942, owing to the extremely wet summer and early freeze-up, was very disappointing in respect to the completion of road-work. The labour situation and the difficulty in securing repairs also had a decided bearing on the amount completed and cost of same. During the season completions were made covering 12 miles of high standard elevated grade. Part of it, however, was in very low-lying ground, where several long fills had to be built with bulldozers, which is responsible for the high cost of \$244.00 per mile. Completion was also made of 206 miles of standard blade grade at \$20.00 per mile. Auto patrols twice maintained 929 miles, and part of it three times. A special bridge crew was not employed and culverts and bridges were installed and repaired by the Board's machine operators during wet weather and by local labour. A total of

\$5,479.86 was expended on the purchase of culvert and bridge material. The majority of this material was used in building culverts during the winter months in the Youngstown shop, old car and tractor rims being used for a foundation, all timber being treated with a mixture of Wainwright tar and Diesel oil.

The amount of \$17,470.57 shown in the Financial Statement as road maintenance represents cash payments. In addition, road-work was completed and applied on taxes and relief to the amount of \$3,349.90, making a total of \$20,820.47 spent under this heading.

The Board is fully cognizant of the fact that more road-work should be done. Having sufficient moneys on hand therefore, every possible effort has been made to secure more up-to-date road machinery, but with little success, as all such equipment is under the control of the U. S. A. War Production Board.

In 1939 when the Special Areas Board took over control, there was only a comparatively small reserve. It therefore became necessary to conserve expenditures. The situation is now reversed. Funds are available, but the equipment is not available for purchase. It is a problem which must wait till the end of the war before it can be adjusted.

The following table contains statements of receipts and payments. The Special Districts Trust Account represents the collection and disbursement of moneys collected from privately owned lands, whilst the Special Areas Trust Account deals with public lands.

## DEPARTMENT OF LANDS AND MINES

GOVERNMENT OF THE PROVINCE OF ALBERTA  
DEPARTMENT OF LANDS AND MINES  
SPECIAL AREAS AND SPECIAL DISTRICTS  
CASH STATEMENT FOR THE FISCAL YEAR 1942-43  
(Ending March 31, 1943)

## CASH ON HAND MARCH 31, 1942 AND REVENUE FOR YEAR 1942-43:

Cash in bank March 31, 1942—Special Districts Trust Account.....	\$164,003.21
General tax .....	319,715.64
Social service taxes .....	45,216.05
Interest collections on agricultural advances .....	266.74
Miscellaneous .....	2,901.19
Road maintenance applied on taxes .....	2,726.90
Road maintenance applied on relief .....	623.00
Bank interest .....	595.67
Cash in bank March 31, 1942—Special Areas Trust Account .....	131,953.76
1943 Special Areas collections on provincial lands .....	144,146.71
Department of Education Special Grant .....	62,000.00
Appropriation No. 1134 .....	53,799.37
Appropriation No. 1181 .....	24,180.60
Appropriation No. 1180 .....	10,000.00

TOTAL.....\$962,128.84

## PAYMENTS:

Social service taxes .....	\$ 45,216.05
Schools .....	210,888.44
Hospitals .....	44,298.82
Administration costs .....	53,799.37
Provincial Mental Hospital .....	930.00
Provincial Training School .....	495.00
Mothers' allowances .....	4,864.99
Blind pensions .....	254.86
Direct relief .....	660.92
Medical relief .....	18,580.80
Interest on agricultural advances .....	266.74
Charitable and hospital bills .....	5,599.80
Road maintenance, cash .....	17,470.57
Road maintenance, applied on taxes .....	2,726.90
Road maintenance, applied on relief .....	623.00
Pests and weeds .....	1,051.00
Special Areas items charged to Special Districts Trust Account .....	2,434.35
Land Titles Office fees .....	2,827.50
Purchase of equipment .....	10,122.13
Maintenance of equipment .....	14,391.92
Purchase of accounting machines .....	3,984.61
Hospital medical and indigent relief .....	1,778.01
Old age pensions .....	15,502.80
Maintenance of offices .....	880.59
Liquidation of debentures of former school districts in the Special Areas .....	3,377.33
Community pastures .....	8,834.06
Grass seed .....	801.00
Special Districts items charged to Special Areas Trust Account .....	791.56
Miscellaneous .....	924.65

TOTAL PAYMENTS.....474,377.77

CASH BALANCE.....\$487,751.07

## CASH BALANCE

Special Districts Trust Account .....	\$222,463.72
Special Areas Trust Account .....	265,287.35
	<u>\$487,751.07</u>

## 1942 LEVIES:

General Tax .....	\$264,516.95
Social service tax .....	32,916.98
	<u>\$297,433.93</u>

## ASSESSMENTS

ASSETS					
	Area (in acres)	Land	Minerals	Improvements	
1941 .....	2,791,148	\$11,247,738.00	\$ 7,735.00	\$935,071.00	\$12,190,544.00
1942 .....	2,480,253	10,366,822.00	7,120.00	939,541.00	11,313,483.00

J. HARVIE, Deputy Minister,  
Department of Lands and Mines







